Transportation Plan 2030

November 2004

Rocky Mount Urban Area
Metropolitan Planning Organization

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Executive Summary

This planning document represents the culmination of long-range planning efforts currently underway by the Rocky Mount Urban Area MPO. These efforts are directed towards providing for a well-integrated, multi-modal transportation network capable of supporting the safe and efficient movement of people and goods. In addition to this goal, it is the objective of the MPO to promote and sustain ongoing public input into what direction the MPO should take and how priorities are established when identifying long-range transportation improvements within the planning area.

To identify these improvements, this document provides a discussion of existing and future year socio-economic data within the planning area, as these variables provide the basis for projecting future year demands on the local transportation network. More specifically, the plan includes a discussion of the existing and future year population, employment, and land use characteristics within the planning area. In terms of projections for the year 2030, it is anticipated that the population of the MPO will increase from 78,600 (2000) to 90,000, employment will increase from 36,000 jobs (2003) to 45,000 jobs, and with the exception of development within the floodplain of the watercourses within the planning area, current land use trends will continue with higher concentrations of residential development to the north and west of Rocky Mount.

The document also examines the current status of each mode that exists within the planning area and the long-range improvements required to address future year travel demands within the area. Although improvements are outlined across all modes, a majority of the projects are roadway related ($320 million of the $330 million in proposed improvements). The more costly of these projects include the widening of I-95, the extension of Nashville Road, the widening of US 64 Bypass, and the replacement of Sutton Road tunnels. Other improvements proposed in the long-range plan include completion of the Phase I sidewalk priority list, , upgrading the City of Rocky Mount

Closed Loop Signal System, and implementation of the improvements identified in the NCDOT/City of Rocky Mount Traffic Separation Study.

The Rocky Mount Urban MPO Transportation Plan is also intended to satisfy federal requirements associated with the enactment of TEA-21. In addition to including a 20-year planning horizon, the legislation dictates that the plan be fiscally constrained. Based on the projected cost of those long-range improvements included in the plan and the local, state, and federal funds projected through the year 2030, a $101 million shortfall is anticipated. Although efforts to identify alternate funding sources are recommended, the plan prioritizes the long-range improvements by establishing four categories. The first three categories include those projects identified as short-term improvements (Phase 1, the next 10 years), mid-term improvements (Phase 2, the next 15 years), and long-term improvements (Phase 3, the next 25 years). The fourth phase includes those projects that will be required within the next 25 years, yet will require additional funds to construct.

Overall, this document seeks to assist local decision makers in their efforts to plan for and provide a safe, efficient, and well-integrated transportation network capable of satisfying the future year travel demands within the Rocky Mount Urban Area. To achieve this goal, however, it is clear that additional funds will be required to fully fund the improvements required within the next 25 years. It is also important to recognize that this plan is a living document and that the assumptions, findings, and recommendations included in the plan should be revisited as changes in socio-economic or land use conditions, the MPO's priorities, and anticipated funding levels dictate.

CHAPTER ONE
INTRODUCTION

The Transportation Plan 2030 for the Rocky Mount Urban Area Metropolitan Planning Organization (MPO) is the document which fulfills the Federal requirements of metropolitan transportation planning found in 23 CFR 450 Subpart C. The City of Rocky Mount serves as the Lead Planning Agency for the MPO and provides staff to assist in developing a comprehensive, coordinated, and continuing transportation planning program. To this end MPO staff work with the Technical Coordinating Committee and the Transportation Advisory Committee of the MPO to develop a Transportation Plan that meets the transportation needs of the area within the next 25 years.

Section 1.1 Background

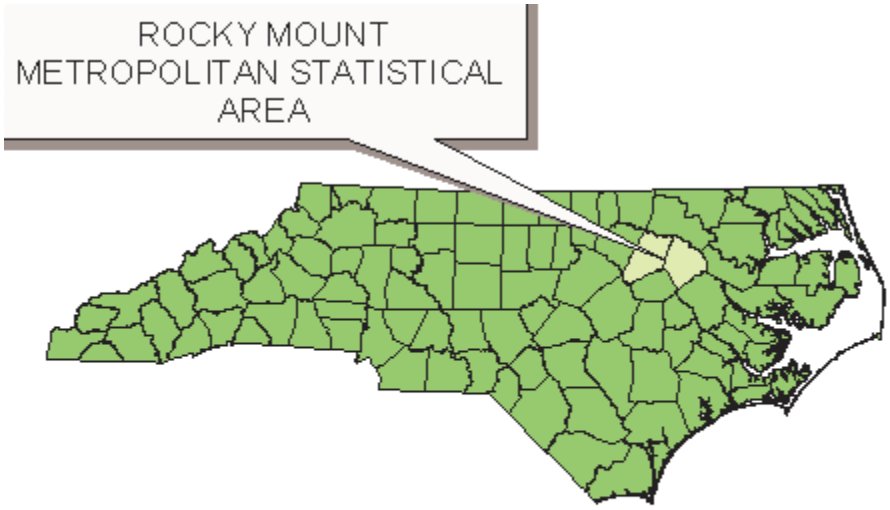
The City of Rocky Mount is located in both Edgecombe and Nash Counties in northeastern North Carolina. Rocky Mount straddles the geographic line that demarcates the piedmont and coastal plain geographical regions of North Carolina, as well as the county line. Located 53 miles east of Raleigh, the state capital, and 125 miles south of Richmond, Virginia, Rocky Mount is the 15th largest city in the Tar Heel State.

Tuscarora Indians hunted and settled the area of "rocky mounds" along the piedmont boundary at The Falls of the Tar River. This area would attract settlers and industry early in our nation's development. Agriculture prospered in the Rocky Mount area and the Tar River was a source of power for one of the state's first textile mills. The Indian trails and wagon paths of the first inhabitants became the basis for the area's earliest road network.

The Wilmington – Weldon Railroad was one of the earliest state railroads. The rail line located east of the settlement around the Tar River Falls in 1840. The establishment of a rail depot to serve agricultural and textile business directed the growth of Rocky Mount from the Falls to the railroad. The business center of Rocky Mount migrated east to the

depot. Today Main Street parallels the railroad tracks, which are owned by CSX Corporation.

As the area prospered, Edgecombe County was divided along the railroad tracks to form Nash County to the west with the Town of Nashville as county seat. Today, Edgecombe and Nash are commonly referred to as "The Twin Counties", and comprise the Rocky Mount Metropolitan Statistical Area. In 1992 the Rocky Mount Urban Area became the 17th Metropolitan Planning Organization (MPO) in N.C, and in 2002 the Urban Area



was expanded to include the Town of Nashville, NC. The Rocky Mount Urban Area MPO includes approximately 198 square miles and accounts for 45 percent of the population of Edgecombe and Nash Counties.

Rail and highway travel in a north-south direction has historically been important in Rocky Mount, which is halfway between New York City and Miami, Florida. US Highway 301 runs north-south on Church Street through the City proper. Today most north-south long distance travelers use Interstate 95, which nearly bisects the distance between Rocky Mount and Nashville. Nonetheless, many travelers still stop in Rocky Mount, an All American City, for goods and services, just as the earliest visitors to the area centuries ago.

US Highway 64 is the major transportation route of east-west traffic in the Rocky Mount Urban Area MPO. Extending from the coast to the mountains of North Carolina US 64, the State's longest highway, passes through Rocky Mount and Nashville as a four-lane divided highway with controlled access.

A number of smaller state and county roads radiate from the downtowns of Rocky Mount and Nashville. These farm-to-market roads are changing from rural to urban character as the area continues to grow. Halifax Road, which roughly marks the route of General Cornwallis to Yorktown, is rapidly changing as the road's function is becoming more important for more people traveling north-south within the study area.

Section 1.2 Status of the MPO's Long Range Plans

The Rocky Mount Urban Area MPO is charged with the coordination and promulgation of transportation planning activities for the City of Rocky Mount, the Town of Nashville, and the contiguous urban areas of Edgecombe and Nash Counties. While the tangible results of this effort primarily take the form of a local Thoroughfare Plan and Transportation Plan, the work required to develop these long- range planning documents necessitate that transportation planning for the area remain continuous, comprehensive, and cooperative. Such is the mission of the Rocky Mount Urban Area MPO.

The first Thoroughfare Plan for the City of Rocky Mount was adopted in 1963 and later revised in 1965. A subsequent plan was developed in 1973 and later adopted that same year. In 1979, revisions to the Thoroughfare Plan were required to accommodate the commercial development taking place within the US 301 Bypass corridor. The next Thoroughfare Plan, which was initially prepared and adopted in 1985, was later revised and approved by the North Carolina Department of Transportation in May 1988. This revision was completed as a result of the changes anticipated with construction of what is now Golden East Mall, a regional shopping mall located immediately adjacent to the intersection of US 301 Bypass and NC 43/48. The current Thoroughfare Plan was

adopted by the Rocky Mount Transportation Advisory Committee and the NCDOT in 2003. The Town of Nashville Thoroughfare Plan was adopted in December of 1983.

The first Rocky Mount Transportation Plan was prepared with the assistance of the NCDOT and FHWA and approved by the MPO's TCC and TAC in 1998. This document addressed all existing travel modes within the Rocky Mount Urban Area including highway, pedestrian, bicycle, rail, and air. The document, which included a horizon year of 2020, also addressed the financial implications of pursuing these long-range improvements across each of these modes given the anticipated funding levels through the year 2020. Subsequently, a second Transportation Plan was adopted in September 2001 with a 20-year planning horizon of 2025. Although the Transportation Plan currently in place is only 3 years old, the Rocky Mount Urban Area MPO Transportation Plan 2030 is necessary as part of the MPO's efforts to achieve Transportation Conformity. Achieving Conformity ensures that the local transportation plan is consistent and is in compliance with the State's air quality plan. With this in mind, this document revisits the assumptions and recommendations included in the 2025 plan and expands the plan to the new MPO Boundary, while also extending the horizon year of the Transportation Plan by another five years to the Year 2030.

Section 1.3 Report Format

The following sections of this report help to more clearly define the long-range transportation needs of the Rocky Mount Urban Area. While this effort includes identifying and addressing anticipated transportation network capacity deficiencies, this plan also seeks to identify and capitalize on opportunities to develop a more fully integrated, multi-modal transportation network capable of addressing the long term needs of the urban area. The report also seeks to provide yet another tool for local, state, and federal officials to use when assessing what transportation improvements are necessary to support the economic vitality, safety, level of accessibility, quality of life, and viability of the area comprising the Rocky Mount Urban Area MPO.

CHAPTER TWO
TRANSPORTATION PLAN CONSIDERATIONS

Although it could be said that the primary goal of the Transportation Plan is to compare the cost of transportation improvements (across the various modes) within the planning area to the funds anticipated for the construction of such improvements, to do so would significantly understate the value of the plan and the effort required to prepare it. In addition to the technical aspects of compiling the plan recommendations (identifying projects, generating cost estimates, and estimating future year funding levels) a variety of other considerations factor into this process. With this in mind, the following sections address several of the essential factors that must be addressed by the MPO during the development of the Long Range Transportation Plan (LRTP).

Section 2.1 The Seven Planning Factors

The transportation programs of the United States are supported by federal legislation enacted by the Congress. Although TEA-21 is currently in effect via extensions passed by Congress, the next federal legislation (next TEA) is anticipated to include the basic planning requirements of earlier legislation (Intermodal Surface Transportation Efficiency Act, and Transportation Equity Act for the 21st Century).

TEA-21, the successor to ISTEA, serves as the enabling legislation and funding mechanism for MPOs. As such, TEA-21 includes a list of requirements that must be satisfied by the MPO to receive those funds allocated for local transportation planning efforts. In addition to stipulating that the MPO must maintain a LRTP with a minimum 20-year planning horizon, the legislation also outlines a list of 7 factors that must be addressed during the planning process. These factors are intended to insure that local planning efforts account for the myriad of issues, which must be addressed when programming improvements to the transportation network. A discussion of these factors

and the Rocky Mount Urban Area MPO's efforts to address each of these factors during the planning process follows.

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;

The transportation system is a principal component of the community infrastructure supporting economic activity. The needs of the community for essential functions, commercial enterprise and future development must be met by the planned transportation system.

The Transportation Plan includes improvements on the radial arterials leading to the central business areas. Widening of NC 43 and NC 48 will improve the service to the vital economic centers of the Rocky Mount urban area. Completion of the Northern and Southern Connectors will increase the connectivity of the community allowing for economic growth.

2. Increase the safety and security of the transportation system for motorized and non-motorized users;

Safety is typically the number one requirement of citizens for the transportation system. All users of the transportation network must be afforded a safe facility to meet their mobility needs.

A study of the traffic accident reports is used to develop improvements for safer operating conditions. A program of construction and repairs of sidewalks is conducted to provide safer pedestrian facilities.

Currently the Traffic Separation Study, a railroad crossing study, performed under the direction of the NCDOT Rail Division is being evaluated for suggestions to improve safety at at-grade railroad crossings.

3. Increase the accessibility and mobility options available to people and for freight;

The Transportation Plan shall assist people in meeting the two goals of transportation, mobility and accessibility. Thoroughfare and Transportation Plans shall include projects that increase the ease with which these goals may be achieved.

The Transportation Plan supports multimodal forms of transportation, which give the public more choices for traveling. The transportation center is the hub for Tar River Transit, Amtrak, and intercity bus traffic. An increase of routes and hours of the Tar River Transit is being planned.

4. Protect and enhance the environment, promote energy conservation, and improve quality of life;

Quality of life will directly improve with a better transportation system, which is designed to protect the environment. More efficient and conservative transportation facilities will serve to protect and preserve our natural environment.

Environmental studies of proposed transportation projects are conducted to assure that the consequences of the projects are known and evaluated. Constructed projects must not create unacceptable quality of life issues.

5. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

All means of moving people and goods must be considered in the transportation plans. Allowing the different modes to operate together creates a greater opportunity to meet the transportation needs of the community.

The transportation center with transit, rail and intercity bus services at one location has been a successful operation for our citizens. The connection of the

greenway trail system with sidewalk facilities is another enhancement included in transportation plans.

6. Promote efficient system management and operation

Time and resources are limited and expensive. Transportation plans, which promote a more efficient system with enhanced capacity, will serve the community much better.

The closed circuit traffic signal system using fiber optic cable has improved the operation of the transportation network. Use of one-way pairs in the downtown area is an example of efficiency in Rocky Mount.

7. Emphasize the preservation of the existing transportation system.

Plans must be made to take care of the existing facilities. The potential of a new facility is met if the existing system works well. Only a maintained transportation network will work as designed.

Resurfacing of roads and maintenance of signs and markings are continuous programs to preserve the transportation system. Monitoring of operations and inspections of facilities are principal components of the plan to preserve the transportation system.

Section 2.2 Public Involvement In Transportation Planning

In addition to the seven planning factors set forth within TEA-21, the legislation also emphasizes the importance of public input into the planning process. While effective transportation planning necessitates ongoing public review and comment in local planning efforts, TEA-21 further reinforces the importance of public involvement in the identification and evaluation of proposed transportation improvements, the assessment of these improvements as they relate to the goals and objectives of the community, and the prioritization of these improvements within the planning area. In keeping with this philosophy, the Rocky Mount Urban Area MPO has been very pro-active in its efforts to

solicit and promote public input during efforts to update the Thoroughfare Plan and the Long Range Transportation Plan.

Public involvement has been sought in the transportation planning process in accordance with the Rocky Mount Urban Area MPO's "Policy For Seeking Public Comment", which is included in Appendix A of this report. As the Thoroughfare Plan and Transportation Plan have been studied, the input of local citizens has been requested for use in the revisions of these planning documents. Without the comments of the local public, the work of the City of Rocky Mount staff, representatives of NCDOT and FHWA, and members of the Technical Coordinating Committee (TCC) and the Transportation Advisory Committee (TAC) would be incomplete. The local citizens define the goals and objectives of the community to which the planning officials strive to achieve.

The MPO staff recognizes that a variety of formats are required to maximize the opportunity for public input in transportation planning. First, the public involvement process includes open meetings of the TCC and TAC where transportation problems are addressed with proposed improvements. Also, public meetings are held to present major transportation project proposals and the Transportation Improvement Program (TIP). Participation by the MPO in the annual Business EXPO conducted by the local Chamber of Commerce has been a successful interaction with the local public for several years, and the 2003 Transportation Open House staged at the local public library was a positive opportunity to present transportation developments to the community. The employment of an Internet website for the MPO has been a recent addition to the tools and methods used to engage the public in local transportation planning. Additionally, the MPO staff remains prepared to speak with local neighborhood associations, civic organizations and school and church groups. Both local and regional print and electronic media are employed to help reach the public with transportation information.

CHAPTER THREE
SOCIO-ECONOMIC AND LAND USE DATA

To adequately assess the long-range transportation needs of the Rocky Mount Urban Area MPO, it is important to have a good understanding of the factors that influence demand on the local transportation network. Although there is a wide range of variables to consider, the three most influential factors include the population within the boundaries of the MPO, the local economy, and land use patterns. It is also important to develop a realistic forecast of how these variables will change between now and the horizon year for the plan, 2030. Each of these factors is discussed in the subsequent sections.

Section 3.1 Population

One of the more accurate predictors of travel behavior within an area is its population. Since the Rocky Mount Urban Area MPO resides within the Rocky Mount Metropolitan Statistical Area (MSA), examining the population changes within both the MSA and the MPO helps to put the two into perspective. Although the MPO more or less encompasses the City of Rocky Mount, the Town of Nashville, and the urban area (> 500 persons per square mile) contiguous to the city limits, the MSA consists of the aggregate of Nash and Edgecombe Counties.

According to the 2000 Census, the populations within the City of Rocky Mount and the Town of Nashville stand at 56,014 and 4,417 persons respectively (Appendix B). Based on its population and the reported population of the more than 500 other North Carolina municipalities, the City of Rocky Mount ranks as the 15th most populated.

Overall, the Rocky Mount Metropolitan Statistical Area experienced moderate growth over the ten year period from 1990 to 2000. The two-county area grew at an average rate

of approximately 0.73 % per year. Nash, the larger of the two counties, grew at a rate of 1.4 % per year for the period while the Edgecombe County population decreased at a rate of 0.17 % per year. During this time frame, the growth rate of the City of Rocky Mount was approximately 1.4 % per year. Through the year 2010, the populations of Rocky Mount, Nash County, and the MSA are projected to increase, but the population of Edgecombe County is predicted to decline.

Overall, the population within the MPO accounts for approximately 45% of that within the Rocky Mount MSA.

Table 3.1 summarizes the changes in population of the City of Rocky Mount, the Town of Nashville, the Rocky Mount Urban Area MPO, and the Rocky Mount MSA. This table also includes the most recent estimates for the change in population of these same areas through the horizon year of this Transportation Plan.

Table 3.1: Population Trends

	1980	1990	2000	2010	2020	2025	2030
Rocky Mount	41,283	49,000	55,900	62,600	72,000	73,618	78,000
Nashville	3,033	3,617	4,417	5,080	6,095	6,704	7,314
MPO	48,800	60,300	65,800	73,400	86,542	98,000	90,415
MSA	123,141	133,235	143,026	155,769	157,350	171,049	164,391

As Table 3.1 suggests, the population within Rocky Mount and the MPO has maintained a growth rate in the range of 1.5% per year over the past 20 years. By contrast, the rate of change in population within the MSA over this same period of time is approximately one-half of that experienced within the City of Rocky Mount and the MPO, or on the order of about 0.7% per year.

Although the increase in population attributed to the City of Rocky Mount and the MPO is roughly twice that of the MSA, a portion of this increase can be attributed to the annexations undertaken by the City of Rocky Mount in 1994 and its merger with the Town of Battleboro in 1996. At present, the City of Rocky Mount and the Town of Nashville include approximately 36 and 2.6 square miles respectively within their corporate boundary. The MPO boundary (198 sq. mi.) has also been adjusted in conjunction with the expansion of the Rocky Mount Urban Area to include the Town of Nashville, NC. As a result, the MPO planning area includes both an urban and rural component, with the rural component being that area anticipated becoming urban in character within the next 20 years.

The number of persons per household is another measurement useful in predicting the travel characteristics of home units. Both the population and the number of households in the Rocky Mount MSA have increased from 1980 to 2000; however, the persons per household (PPH) number has decreased. According to U.S. Census 2000 statistics the PPH for Edgecombe and Nash Counties was 2.67 and 2.54 respectively (Appendix C). With associated age and income data the PPH becomes more informative as to what type of trips and how many are made by an average household.

Section 3.2 The Local Economy

The economic base of an area is an important factor to consider when assessing existing travel demand characteristics or when projecting future year travel demands. As with many eastern North Carolina towns, the local economy within the Rocky Mount Urban Area MPO primarily consists of jobs within the manufacturing and retail/service based sectors. The area does not include any military bases, major universities, or major tourist destinations.

The number of employers in the "Twin County" area is estimated to be 3,380, which can be classified as service producer or goods producer. The vast majority (80%) is service producers and the remainder (20%) is goods producers. Another typical characteristic is the small size of the average business in the Rocky Mount Urban Area MPO. For

example, only three private firms employ more than 1,000 persons, and 17 private firms employ more than 250 people.

The combined available labor force of Edgecombe and Nash Counties was estimated to be approximately 69,416 in June 2004 by the North Carolina Employment Security Commission (Appendix D). Of this number approximately 92% were employed. By industry classification, the largest percentage of workers (24.7%) is employed in manufacturing jobs, followed by 14.6% in retail trade and 11% in health care (Appendix E).

The economic climate of the Rocky Mount Urban Area has been difficult over the first several years of the 21st century. The downturn of the tobacco, textile, and furniture industries in North Carolina have been severely felt locally. Even though the unemployment rates for both Edgecombe and Nash Counties have exceeded the state and national averages for more than a decade, the differences have been more dramatic between 2000 and 2003 (Appendix F). Conditions have improved, however, during the first half of 2004 and we remain optimistic that this trend will continue.

The amount of travel that a person makes is directly proportional to his/her income. The 2004 per capita income of workers living in Edgecombe County is $22,469 and $25,998 in Nash County. Median family incomes are $35,902 and $44,769 for Edgecombe and Nash respectively compared to $46,335 for the State of North Carolina (Appendix D).

Regarding the City of Rocky Mount, data collected in 1998 by Donald T. Iannone & Associates determined that the City's economic base consists of approximately 2,700 businesses and 38,833 jobs. Of this total, the study determined that approximately 80% of the jobs within the City are related to the manufacturing, retail, and service sectors. More specifically, the services sector accounts for 35 of every 100 jobs, while the retail sector and the manufacturing sector account for approximately 20 and 23 out of every 100 jobs in the "Twin County" area respectively.

An evaluation of the City's economic base by zip code also yielded some interesting facts. For instance, the largest number of businesses and jobs can be found within zip code 27804 (1,311 businesses accounting for 16,964 jobs). This analysis also revealed that the manufacturing and services related businesses were most concentrated in zip codes 27802 and 27804. More specifically, 88% (7,830 out of 8886) of the City's manufacturing related jobs and 79% (9,399 out of 11,954) of the City's services sector related jobs are located within one of these two zip codes.

Although there is approximately 50 to 60 employers within the study area that employ more than 100 employees, there are only a handful of employers with more than 1,000 employees. According to the Carolina's Gateway Partnership and the study conducted by David Iannone & Associates, these employers include Nash-Rocky Mount Schools (2,500 employees), Abbott Laboratories (1,875 employees), Nash Health Care Systems (1,700 employees), Consolidated Diesel Company (1,600 employees), Edgecombe County Schools (1,100 employees), and Glenoit Corporation (1,000 employees). Just inside the eastern MPO boundary, QVC also recently constructed a distribution center within Edgecombe County that at full build-out will employ 1,000 persons.

Section 3.3 Land Use

Since the approval in September 2001 of the Transportation Plan 2025, the City has adopted *Together Tomorrow – The Comprehensive Plan for Rocky Mount, North Carolina* in 2002, the *Land Development Code*, and the *Rocky Mount Collector Street Plan* in 2004. Each of these documents incorporates the Smart-Growth principles as guidelines for land use. Development of the Transportation Plan 2030 relied on these documents for guidance during development of the plan.

Land use within the boundaries of the MPO is as much a function of Rocky Mount's geographic location and its natural environment as it is the local commercial and residential development patterns. In terms of the natural environment, the most prominent natural feature within the Rocky Mount urban area is the Tar River, which originates in

the Piedmont near Roxboro, N.C. and more or less bisects Rocky Mount from the southwest to the northeast on its way to the Pamlico Sound and the Atlantic Ocean. Although the floodplain for the Tar River provides some of the richest farmland in the area, the ability to develop this land has been and continues to be limited by the floodway of the river and the finished floor elevations required for structures located within the floodplain. For example, current regulations in effect in the City of Rocky Mount require the finish floor elevation be 1 foot above the 100-year flood elevation. Current regulations also dictate that a project provide compensatory storage once the proposed fill exceeds 200 cubic yards per quarter acre. This is required to minimize the risk of flooding within the floodplain by maintaining adequate flood storage within the floodplain. In addition to its influence on land use and land development patterns in the area, the Tar River also represents a formidable barrier for the transportation system, due to the width of the river and its associated floodplain. The presence of the river also results in additional environmental constraints that must be addressed when pursuing proposed transportation improvements.

The size of land area boundaries associated with the local area and MPO are provided in Appendix G. Based on an inventory of existing land uses and zoning within the city limits and the ETJ, the largest portion of land is utilized (or currently zoned) for single-family residential. Of the 67,680 acres within the city limits and the ETJ, roughly 43% (13,425 acres) is allocated to single-family residential use. In addition to representing a majority of the planning area, the ratio of residentially zoned property (15,575 acres) to commercially zoned property (5,534 acres) has not changed appreciably within the last 10 years, with a ratio of nearly 3 to 1.

CHAPTER FOUR
TRANSPORTATION ELEMENTS

In this chapter, each of the main travel modes (i.e. Highway, Pedestrian, Bicycle, Railroad, Public Transit, Aviation) within the Rocky Mount Urban Area MPO is examined. Comprehensive planning for each method of travel is needed to ensure that the transportation network addresses the needs of the MPO through the year 2030. Together the several transportation modes work to provide a connectivity of places for the safe and efficient movement of people and goods at a reasonable cost (Appendix H through L).

Section 4.1 Highway Element

The mode split within the Rocky Mount Urban Area is skewed heavily towards the automobile. As a result, most of the travel demand (people and goods) within the Rocky Mount Urban Area MPO relies on the use of local and state maintained roadways and bridges. These roadways include an interstate (I-95), regional routes (US 64, US 301), state highways (NC 4, NC 43, NC 48, and NC 97), state routes (e.g. Winstead Avenue, SR 1613), and city streets (e.g. Grace Street). According to the NCDOT 2002 Highway and Road Mileage there were 727 miles of state maintained highways in Edgecombe County and 1,066 in Nash County. The Powell Bill Maps (2004) indicate that 361 miles of municipal roads and streets exist in the City of Rocky Mount and 32 in the Town of Nashville.

Embedded within this hierarchy of roadways are various designing standards that address operating speeds, access characteristics, and vehicular capacity, etc. This stratification is more commonly referred to as the functional classification of a facility. While this distinction may seem of little consequence, these characteristics have a profound impact on the efficiency and effectiveness of the roadway network.

Many of these types of decisions are addressed when developing the Thoroughfare Plan. This long range planning document, a companion to the Transportation Plan, evaluates the types of roadway facilities required to meet future year travel demands within the planning area. Projects can range from the addition of a turn lane at an intersection to constructing a multi-lane access controlled roadway on new alignment. Once these projects have been identified, the Thoroughfare Plan also seeks to prioritize these projects based on a wide range of factors including, but not limited to, safety, network efficiency, public input, projected travel demand, cost, and the potential to promote economic development.

A number of highway improvements are currently underway in the MPO area as part of the *North Carolina Moving Ahead Program*. These particular projects are not carried by NCDOT as part of the normal Transportation Improvement Program (TIP).

The Rocky Mount Collector Street Plan (CSP) was adopted in June 2004 by the City Council. The CSP was developed to complement the Rocky Mount Comprehensive Plan and Thoroughfare Plan. The purpose of the CSP is to identify the existing collector street network and to develop standards and polices to promote the appropriate use of collector streets in future development areas. The CSP builds on the premise that connections provide choices, improve air quality and safety, reduce congestion, and contribute to an improved quality of life.

Section 4.2 Pedestrian Element

Walking is the most basic means of transportation and is generally the least expensive to accommodate. Most trips begin and end as a pedestrian. Walking is also the most environmentally friendly mode. Walking generates no air pollution, requires very little right-of-way, results in few environmental impacts, and the required infrastructure has a relatively long service life.

Although addressed by some of the more recent federal legislation (ISTEA and TEA-21), the goal of the MPO is to promote and plan for facilities (either stand alone or adjacent to

the roadway) that provide for comfort, convenience, safety, security, and economy to the pedestrian. Sidewalks are one of the fundamental building blocks of a well-integrated transportation network. The MPO also recognizes that it is more cost effective to plan for sidewalks and other pedestrian related facilities in advance versus a retrofit.

In addition to providing an alternative mode for short trips, adequate pedestrian facilities are also beneficial in other ways. For example, residential neighborhoods in the vicinity of transit routes benefit from the addition of sidewalks by making the transit stops safer to reach (minimizing pedestrian-auto conflicts) and more accessible for transit patrons. This same logic applies to rail service. The greater the accessibility of each travel mode, the greater the degree of utilization. This relationship is much of what fuels the current reliance on the private automobile.

In response to the MPO's interest in planning for and improving pedestrian facilities in the area, a committee of local citizens was formed several years ago (the Citizens Advisory Transportation Group; CTAG) to address among other things the need for improved pedestrian access. Most members of this group are transit riders who also walk extensively to and from public facilities. This group meets on a regular basis to promote better planning for and the provision for improved pedestrian facilities. The input from the committee is also solicited by the MPO's transportation planning staff for consideration when evaluating short term and long-range transportation improvements within the MPO.

In addition to emphasizing the importance of including pedestrian facilities within the MPO's planning process, the MPO and the City of Rocky Mount has taken additional steps to make sure the needs of local pedestrians are adequately addressed. To realize this goal, steps were taken to make sure that both existing and proposed facilities comply with the American Disabilities Act (ADA), that new facilities are constructed in accordance with standard design practices, and that any existing lapses in the existing network of sidewalks were identified and systematically eliminated. Specific actions include:

- Updating the City of Rocky Mount Manual of Standard Specifications and Design Guidelines to include standards for the construction and repair of sidewalks,
- Working in conjunction with the NCDOT to complete a multi-year program to construct wheelchair ramps at street intersections within the city limits, and
- Developing a Sidewalk Priority List.

Although the first two items in this list represent major improvements, development of the sidewalk priority list is by far the most aggressive. This effort included an inventory of existing sidewalks and the identification of locations where existing foot traffic appears to warrant the construction of new sidewalks. Once completed, a rating system was developed to prioritize sidewalk needs. Areas with evidence of heavy foot traffic and areas near thoroughfares, transit routes, bus stops, schools, and public complexes were given the highest priority. The Current Sidewalk Priority List is included in the Appendix M.

Since 1998, the City of Rocky Mount has constructed or received funding for 20,065 linear feet of sidewalk at a cost of approximately $612,000. Transportation Enhancement (TE) funds have been the major source of funding for these new sidewalks. Another application for TE funding was submitted in May 2004 to NCDOT for approximately 6,793 linear feet of 5-foot wide sidewalks. The results of this application are expected in 2005.

Section 4.3 Bicycle Element

With traffic congestion becoming more problematic and environmental regulations becoming increasingly stringent, many areas of the country are looking to promote the use of bicycles as an alternative to the use of the automobile. While the use of bicycles alone may only have a small impact in terms of reducing traffic congestion and improving air quality, promoting their use in conjunction with the increased use of other historically underutilized modes (such as bus and rail) is a step in the right direction.

Although the use of bicycles within the Rocky Mount planning area is more or less attributed to recreational users, a local group of enthusiasts have formed a club to further

the cause of bicyclists and to promote bicycle use locally. Citizens participating in the public workshops/neighborhood meetings held to discuss the local Thoroughfare Plan and Transportation Plan also expressed an interest in having the MPO evaluate more bicycle related improvements within the planning area. At present, the most significant bicycle related project within the MPO is the Tar River Trail, which connects Sunset Park to Martin Luther King Park.

In July 2004, the City of Rocky Mount was awarded a grant by NCDOT to develop a Comprehensive Bicycle Plan (CBP). The plan should be completed by the fall of 2005. A principal goal of the CBP will be to improve and encourage bicycle transportation in the City. The experience and knowledge gained during development of the CBP will be incorporated into future plans for the overall MPO area. The following concepts will be investigated as the Rocky Mount CBP is developed.

- Evaluating the potential for development of a scenic bikeway within the planning area,
- Identifying existing residential streets that may be used to develop local bicycle routes, and
- Compiling a list of initiatives that would seek to make bicycling more viable within the MPO (e.g. establishment of a Bicycle/Pedestrian Advisory Committee; procurement of bicycle racks for local parks, public gathering places, etc.; development of a brochure for distribution promoting bicycle use locally).

Section 4.4 Railroad Element

Rocky Mount has a rich railroad tradition. Trains skirted the eastern boundary of the community and by 1840 a downtown depot was in operation. Although the Emerson Shops and the Atlantic Coast Line Railroad are long gone, the depot still operates today. The passenger depot, which serves Amtrak patrons, was renovated and reopened in October 2000. The depot is also located immediately adjacent to the renovated bus station (March 1998), which accommodates both Rocky Mount Transit and Greyhound / Trailways bus services under one roof. Together these two facilities comprise the Rocky Mount Multi-Modal Transportation Center.

The CSX "A" Line, which includes 2 tracks, accommodates both passenger and rail service. At present, eight Amtrak passenger trains pass through the planning area on a daily basis. These trains stop to discharge and/or take on passengers at the Rocky Mount Train Station, which boasts an annual, boarding/de-boarding of more than 50,000 passengers. In addition to those trains providing passenger service to the area, approximately 20 freight trains operated by CSX Transportation use the "A" Line to transport cargo on a daily basis.

In addition to the three active rail corridors discussed above, there are also several abandoned spurs within the planning area. While these corridors contribute little with regards to the movement of people or goods at the present time, the potential exists to redevelop these facilities as a public trail or greenway. Efforts to this effect within other communities, such as the American Tobacco Trail in Durham, promote the reclamation of abandoned rail corridors as a means to further enhance pedestrian and bicycle access across the transportation network.

While rail service within the planning area is an integral part of the transportation network, its presence does create some challenges. For example, there are 66 at-grade railroad crossings within the planning area. These crossings exist where the railroad and surface street physically intersect. Recognizing the potential for collisions at such locations, most of the more heavily traveled crossings are equipped with gates, flashing lights, and a warning bell. Unfortunately, these systems are not failsafe, as motorists have been known to disregard these devices or even attempt to "beat" the train to a crossing.

Although the incidence of collisions associated with at-grade rail crossings has not been a problem within the planning area to date, the potential for this to occur will only increase in the future. With this in mind, the Traffic Separation Study, a study of each of the 34 at-grade rail crossings within the City of Rocky Mount was performed. The intent of this study is to assess which, if any, crossings can be eliminated due to redundancy and what

types of improvements should be pursued in the short-term, mid-term, and long-term to minimize the potential for collisions and to promote railroad safety in the future. The improvements recommended by the study should be incorporated into the Transportation Plan.

SWITCHING OPERATIONS IN THE ROCKY MOUNT TRAIN YARD

Section 4.5 Rocky Mount Transit Element

The transit system in Rocky Mount began as a privately owned and operated system. In 1983, the City acquired new buses and took over operation of the service called Rocky Mount Transit. Since the bus system was acquired in 1983, the City has contracted with a provider to operate RMT services and has only been providing management and maintenance functions. In April 1997, the City entered into a four-year agreement with Mobility Services, Inc. to provide supervision and drivers for RMT have fixed route service.

RMT became Tar River Transit in 2003 and is currently operating seven fixed routes with a fleet of new buses that was put into service in July 2004. Of the routes, six are loops and one is operated in an inbound and outbound pattern. All routes are meeting at the Transfer Center located on Coast Line Street. Fixed route service is available Monday through Saturday, excluding the major holidays. All routes operate on hourly headways (weekdays and Saturday).

In accordance with the requirements of the Americans with Disabilities Act of 1990 (ADA), Tar River Transit also offers complementary paratransit services. The City's ADA service is known as the Dial-a-Ride Transportation Services (DARTS) Program.

Section 4.6 Aviation Element

The expansion of the Rocky Mount Urban Area MPO Boundary in 2003 took in the Rocky Mount –Wilson Regional Airport (RWI), which serves the Counties of Nash, Wilson, and Edgecombe. Located 6.5 miles southwest from Rocky Mount on NC Hwy 97, the airport serves both passenger and corporate aircraft. RWI has one 7,000-foot runway, a passenger terminal building, and several hangars. General aviation services including flight instruction, aircraft charter, aircraft rental, airframe work, and engine repairs are provided by the Fixed Base Operator, AirCare, Inc.

While the airport has traditionally supported commercial air service and corporate and private aircraft, commercial passenger service was discontinued in March 2001. The discontinuation of service was primarily a result of the lack of available air carriers willing to provide service to the area and increased competition with Raleigh-Durham International Airport (located approximately 65 miles west of Rocky Mount) for air passengers.

While efforts to re-establish commercial service are on going, the airport continues to support usage by commercial, corporate, and private aircraft. Commercial planes utilizing the airport include Federal Express. Corporate planes and hangars are

maintained by RBC Centura, Standard Commercial Tobacco, MBM Corporation, and Guardian Care. At present, there are approximately 50 private aircraft based at RWI.

Section 4.7 ITS Element

With the funding for transportation improvements becoming increasingly scarce on the local, state, and federal levels, additional emphasis has been placed on maximizing the "capacity" provided by the existing transportation infrastructure. One of the more cost effective approaches to achieve this goal involves the use of technology to better manage and integrate the existing components of a transportation system. Because this approach routinely relies on advanced technologies to accomplish this goal, these tools generally fall within the category of Intelligent Transportation Systems (ITS).

Depending on the size, complexity, and diversity of the systems in question, there is a wide range of tools available to "maximize" the ability of the network to transport people and goods. From a local perspective, however, the construction and implementation of the Rocky Mount Closed Loop Signal System in December 1997 is the most significant investment in ITS technology within the MPO. At present, the system consists of 127 signalized intersections (grouped within 18 zones) and 3 video cameras. A majority of these intersections are interconnected via fiber optic cable, although several remote locations are equipped with telephone drops and modems. This interconnection allows for continuous communication between each of the intersections within a zone and between each of the zones and City Hall. In addition to allowing each of the intersections within a zone to operate in a "coordinated" manner, the ability to monitor, trouble-shoot, and revise the settings from a remote location is extremely beneficial. This is particularly true during emergency situations, when malfunctions are detected, or when "special" circumstances dictate some deviation from normal operating parameters (during unexpected detours, after an accident to facilitate traffic control, special events, street closures, etc…).

According to the NCDOT Traffic Engineering Branch, traffic signal systems have a life expectancy in the range of 7 to 10 years. Given the fact that construction of the current

system was completed in 1997, it is reasonable to expect that the current system will need to be updated due to its age and advances in technology by 2007. In addition to updating the system to incorporate new advances in signal system technology, the growth in traffic volumes and the addition of traffic signals within the MPO will also require expanded video surveillance capabilities and the extension of the fiber-optic cable plant to incorporate these new signalized intersections into the signal system. It is projected that the cost to upgrade the signal system and extend communications to those signals without fiber will be on the order of $4.4 million.

Aside from the signal system, there are several other areas where ITS type applications may prove beneficial within the Rocky Mount Urban Area. Examples include providing advance warning and detour information in the vicinity of the at-grade railroad crossings through downtown Rocky Mount, disseminating information to motorists within the NC 4/US 301/US 64 corridors during emergency detours associated with I-95, the use of highway advisory radio (HAR) and variable message signs in conjunction with the evacuation of coastal communities when required due to the threat of a hurricane, and the implementation of ATIS to inform transit patrons of anticipated arrival and departure times at transit stops.

CHAPTER FIVE
FINANCIAL PLAN

The financial plan is an essential element of the Long Range Transportation Plan (LRTP). Federal regulations require the transportation improvements included in the LRTP be financially constrained. More specifically, the cost of those projects included in the Transportation Plan should not exceed the funds reasonably expected at the local level for construction of those improvements identified over the life of the plan.

Given the likelihood that the anticipated level of funding will not be sufficient to carry out the program in its entirety, a financially constrained plan also provides a more realistic picture of what can be programmed with the funding currently available. The plan also helps to alert local, state, and federal officials to the need for alternate funding sources to fully implement the improvements proposed to address future year travel demands projected within the MPO's planning area. In the event additional funding cannot be identified, the financial plan requires the MPO to prioritize and program those projects within the LRTP within the constraints of funds available. With this in mind, the financial plan incorporated into this document will:

- Demonstrate how the LRTP can be implemented
- Identify anticipated funding sources
- Recommend alternative financial strategies for transportation improvements
- Suggest additional projects / prioritize currently proposed projects as dictated by funding levels

Section 5.1 Overview of Financial Sources for Transportation

The State of North Carolina and the Governments in the MPO planning area have a variety of funding sources at their disposal for the development and maintenance of their transportation system. The vast majority of transportation funds available are generated by fuel taxes levied by the state and federal government. Federal funds are collected and

distributed to federal highway, railway, transit and aviation programs from which the State of North Carolina receives funds based upon eligible projects and funding formulas dictated by federal legislation. As do all other states, North Carolina also collects fuel taxes in addition to that collected on behalf of the federal government to construct roads and highways. In addition to financing improvements to state maintained roadways, a portion of these funds is distributed to eligible cities for maintenance and improvement of local roads. Currently these taxes are collected at a rate of 41.8 cents per gallon of gas. Of this total, 18.4 cents is the federal gas tax and 23.4 cents is the NC gas tax. Currently, NC ranks 40th in terms of the total tax levied per gallon of gas. On the local level, funds are collected from local tax levies, business license fees, and similar sources, to supplement those funds provided by the state.

Public transportation systems receive local, state, and federal funding for operations, planning, purchasing, and maintenance functions. Tar River Transit receives federal Section 5307 and 5303 and 5309 funds for these purposes.

Section 5.2 Existing Uses of Transportation Funds

In the Rocky Mount Urban Area MPO, Federal and State funds are allocated to statewide programs, initiatives, and responsibilities. A portion of the funds is also allocated to the local governments for the development of long-range transportation plans. The Federal and State funds in the Rocky Mount Urban Area MPO are allocated to the following types of transportation programs.

- Interstate Highway Improvements and Repair (I-95)
- Highway Construction
- Public Transportation (Tar River Transit, AMTRAK)
- Resurfacing
- Sidewalks
- Bike Paths
- Restoration and Enhancement of Historic Transportation Facilities
- Bridge Replacement
- Bridge Repair

- Planning and Engineering Costs
- Operations and Maintenance of Existing Highways
- Administration

In some cases, the NCDOT uses the funds to do the work directly through state crews or through contract. In some areas, the state provides the funds and the local governments are required to perform the work with their crews or by contract.

In addition to the funds provided to local governments by the State, local governments also generate funds to be used in road maintenance and street construction. The local governments in the Rocky Mount Urban Area MPO planning area generally use a combination of taxes, fees, and grant monies to pay for transportation projects and maintenance. The most often used sources are ad valorum taxes and Powell Bill funds, which are monies returned by the NCDOT to eligible cities for maintenance of city streets. The amount of Powell Bill funds received locally is based upon the number of miles of streets maintained by the municipality and its population. The source of the Powell Bill funds is the North Carolina gasoline tax. In addition to motor fuel taxes, cities and counties have also used grants and developer contributions to make improvements to their transportation system.

In addition to funding the improvements themselves, the city and counties have implemented subdivision ordinances that require any subdividing property to meet certain requirements. The requirements include the construction of streets to the NCDOT standards at a minimum. The City of Rocky Mount has street construction requirements that exceed the NCDOT requirements. Also, the City of Rocky Mount has zoning regulations that require additional building setbacks on thoroughfares that have been identified in the Thoroughfare Plan for widening. This allows the property owner to develop their property, while also minimizing the cost of right-of-way and disruption to the neighborhood when a roadway is widened.

Section 5.3 Financial Projections

An important step in developing the financial plan involves assessing the funds available for constructing these projects included in the Transportation Plan. As with any projections, the information provided is the best estimate at this time. Actual funding will depend on a number of factors including the economy, population increase or decrease, and governmental regulations. A variety of financial data is presented in Appendix N through X.

For the purpose of this analysis, it was assumed that funding levels for Federal, State and Local governments would remain at current levels. To determine the state and federal share applicable to the Rocky Mount Urban Area MPO, a ten-year average of projects within the Transportation Improvement Program (TIP) was utilized. As summarized in Table 5.1, based on TIP projects programmed between 1998 and 2010, the current level of investment in transportation improvements is on the order of $11.06 million per year (See Appendix R for a calculation of the values exhibited in Table 5.1). Assuming that future funding levels would amount to no less than 75% of the rate of investment over the past 10 years, this would amount to funding on the order of $8.25 million per year. The Appendix W provides a list of those projects programmed with the MPO between 1998 and 2010 for further review.

Funding for public transportation related improvements in the Rocky Mount Urban Area included in the TIP between 1998 and 2008 was also compiled. Based on this evaluation, it is anticipated that the MPO would receive approximately $570,000 on an annual basis to fund transit operations, planning, and capital improvements.

Although a majority of the Powell Bill funds received by Rocky Mount are used for maintenance purposes (resurfacing of streets, drainage improvements, etc.), a review of Powell Bill expenditures over the last eight years in Rocky Mount identified a number of transportation capital improvement projects. Assuming that this level of investment will

continue through the life of the Transportation Plan, approximately $250,000 of Powell Bill funds may be budgeted for transportation improvements on an annual basis.

The City of Rocky Mount also supplements the use of Powell Bill monies with the use of monies from the General Fund. The City of Rocky Mount may be expected to allocate $100,000 per year from the General Fund for transportation improvements based on budget data examined over the last 8 years.

Based on these projections, the funding available for transportation projects in the Rocky Mount Urban Area MPO is estimated to total $9,170,000 annually. For a twenty-five year planning period, this equates to an investment of $229,250,000 in 2004 dollars.

Table 5.1: Funding Sources for Transportation Improvements (2004 Dollars)

Source	Projected Annual Allocation
Transportation Improvement Program	$8,250,000
Public Transportation	570,000
Powell Bill	250,000
General Fund (City of Rocky Mount)	100,000
Annual Total	$9,170,000
25 Year Projection TOTAL	$229,250,000

Section 5.4 Cost Estimates

In order to assess what level of funding would be required to fully implement these transportation improvements proposed through the year 2030, cost estimates were compiled across those modes currently addressed within the LRTP. Like the 2025 Transportation Plan, this plan predominantly consists of roadway related projects. This should not detract, however, from those proposed improvements associated with pedestrian, bicycle, rail, ITS and transit. In its entirety, implementation of the current

plan will require an investment of nearly $330,000,000. An overview of each of the modes is provided below.

Highway

All of the projects included in the highway element of this Plan are from the adopted 2003 Thoroughfare Plan (which is a long-range plan identifying future roadway needs and is not fiscally constrained). As depicted in Appendix V, there are 16 typical road cross-sections ranging from a four-lane divided interstate to a two-lane rural road section.

The North Carolina Department of Transportation maintains cost estimates for various types of roadway cross-sections, Based on this information, estimates were prepared for the various road projects. These estimates are based upon the length of the project multiplied by the per mile cost for the proposed roadway cross section. For the cost of additional right of way, average local ROW costs were incorporated into the project cost estimates. These costs ranged from $50,000 per acre in a predominantly rural area to $100,000 per acre in an intensively developed urban setting.

Federal planning regulations also require that the operation and maintenance of the transportation network be considered. The City of Rocky Mount expends approximately $8,500 per mile per year to maintain 262 miles of city streets. This does not include resurfacing cost. The City plans to resurface each street based upon a 15-year life cycle. The cost to resurface is approximately $60,000 per mile at current prices. By adding resurfacing cost into the street maintenance cost, the current cost to maintain streets in Rocky Mount is approximately $12,500 per mile per year. New streets are assumed not to require resurfacing for 15 years. Maintenance and resurfacing costs for streets is an eligible expenditure of Powell Bill funds and is currently the primary source of funding for these activities.

Pedestrian

The City is actively involved in sidewalk construction and repair. Additional grants are being pursued for this purpose. An allowance of $350,000 for the local share cost of new

sidewalks has been included in this Transportation Plan. Additionally, $500,000 is included for sidewalk rehabilitation. Rocky Mount has an opportunity to develop a Rail to Trail facility along the abandoned rail line from downtown to the former site of Rocky Mount Mills. In order to establish this important pedestrian link, $225,000 has been set aside for this project.

Bicycle

Bicycle facility improvement projects are anticipated with the completion of the Rocky Mount Comprehensive Bicycle Plan in the fall of 2005. An allowance of $60,000 is stipulated for bicycle projects to encourage and improve bicycle transportation in the local area.

Rail

The Rocky Mount Traffic Separation Study has been conducted to determine how the railroad crossings in Rocky Mount can be improved and made safer. The NCDOT and the City of Rocky Mount are negotiating several possible rail crossing closures. Once finalized, improvements at specified rail crossings will be incorporated into the LRTP.

Aviation

Improvement projects for the airport base facility are not included in this plan. Improvements to the transportation network serving the airport, however, are included in this plan.

ITS

The cost associated with upgrading and expanding the signal system is based on an estimate provided by the NCDOT Traffic Engineering Branch. Although the cost associated with certain components of upgrading the system (e.g. additional surveillance cameras) can be reasonably estimated, anticipating what new technology may be available to expand the capabilities of the system within the next 5 to 7 years is more problematic. With this in mind, an estimate of $4.4 million was utilized for planning

purposes. Based on historical data for upgrading signal systems elsewhere in North Carolina, this estimate appears reasonable.

The cost for implementation of an advanced signing/dynamic detour in conjunction with the at-grade railroad crossings through downtown Rocky Mount reflects the cost of the dynamic signs required in advance of the crossings and the communications infrastructure required to support this system. Although it may be possible to implement a less costly alternative once a design for the system is prepared, an estimated cost of $200,000 was selected for planning purposes.

Transit

The transit related improvements included in the Transportation Plan reflect those identified in the Long Range Transit Plan and the Capital Improvement Program. Most of these projects have been programmed for implementation within the next 6 years. The estimate for the Transportation Administration/Maintenance Building represents the proposed budget for this facility at this time. As one might reasonably expect, the actual cost is subject to change due to individual site constraints and a host of other variables. The amount proposed for major bus maintenance reflects historical expenditures by Tar River Transit and anticipated maintenance costs for the current fleet.

Table 5.2: Proposed Transportation Improvements FY 2005 - 2030

Mode	Projected Cost
Highway	
TIP and Local Projects Identified in Thoroughfare Plan	$320,000,000
Spot Safety/Roadway Capacity Improvements	$1,500,000
Pedestrian	
Phase I Sidewalk Priority List	$350,000
Sidewalk Rehabilitation Program	$500,000
Mill Village Spur (Rails to Trails)	$225,000
Bicycle	
Development of Local Bike Routes	$50,000
Designation of Scenic Bikeway	$10,000
Rail	
Improvements Associated with Traffic Separation Study (TSS)	$1,800,000
ITS	
Signal System Upgrade	$4,400,000
Advanced Signing-Dynamic Detour for at-grade crossings	$200,000
Transit	
Bus Turn-outs	113,000
Major Bus Maintenance	860,000
Service Vehicle	70,000
Lift Equipped MiniVan	40,000
Replacement of Lift Equipped Vans	170,000
TOTAL	**$330,288,000**

Section 5.5 Financing Strategy and Summary

Section 5.1 outlined the current funds used for capital road projects and road maintenance. Section 5.3 outlined future funds that are anticipated to be available for road construction and maintenance. Section 5.4 looked at the cost of constructing the priority projects and the cost of maintaining the existing streets and the streets to be constructed within the next 20 years.

The highway improvements identified the Transportation Plan have been prioritized as follows. The current Transportation Improvement Program projects scheduled for construction by 2010 have been listed first. Needed projects not on the TIP were grouped in Phases 1, 2, 3 and 4 with highest priority assigned to the Phase 1. Phase 1 projects have been recent requests as "Unmet Needs" in TIP negotiations with NCDOT. Phase 2 projects are associated with the southern connector, which was first identified in the 1985 Thoroughfare Plan. Projects associated with the implementation of the northern connector and widening projects comprise the Phase 3 projects. Phase 4 contains additional projects, which are required to meet anticipated projected travel demands through 2030.

The Transportation Plan is fiscally constrained if only Phases 1, 2, and 3 of the Highway Element of the Transportation plan are constructed. The current TIP projects and Phase 1, 2, and 3 projects total approximately $203,388,000. The financial projection for TIP projects is approximately (25 x $8,250,000) $206,250,000 over the time of the Transportation Plan. The balance of anticipated funding for transportation ($229,250,000 less $206,250,000) would be used for transportation improvements among the other modes of travel.

The projects identified in Phase 4 of the Transportation Plan would require additional funds to be constructed. The projects could be funded in a number of different ways including increases in the federal allocation to the NCDOT, increases in the NCDOT

direct revenues due to an increase in the gas tax or the addition of other revenue streams, and increases in local revenues generated by ad valorem taxes and grants. As funding conditions change, however, the Transportation Plan priorities should be re-examined.

A factor not included in the revenue projections was developer contributions. Through diligent planning and earlier project identification, regulations, policies and procedures could be developed to protect corridors for future thoroughfares, and require contributions from developers as property develops. These measures would reduce the cost of right of way, and in some cases, would require the developer to make the planned improvement

APPENDIX

TO

ROCKY MOUNT URBAN AREA MPO

TRANSPORTATION PLAN 2030

APPENDIX A-

POLICY FOR SEEKING PUBLIC COMMENT

The following is a statement of policy for the Rocky Mount MPO for involving the public in transportation planning:

Every year the Rocky Mount Urban Area Transportation Planning staff will draft a proposed transportation project request list.

2. The project request list will be presented to the Technical Coordinating Committee (TCC) and the Transportation Advisory Committee (TAC) for review, comment, and modification, normally in September of each year.

3. After review by the TAC, the proposed project request list will be advertised by legal notice and the TAC will conduct a public hearing on those projects that are proposed as changes from the preceding year's project list submitted to the NC Department of Transportation (NCDOT). The public hearing will be advertised by legal notice published two times within a thirty-day period preceding the date of the hearing. This hearing will be held prior to the NCDOT Division 4 annual meeting whenever practical.

4. After the public hearing, the TAC will approve the project request list, including prioritizing the requested projects, and present it to the Board of Transportation to consider for inclusion in the annual State Transportation Improvement Program (STIP) Update. When practicable, presentation of the project list shall be made at the annual Division 4 meetings held for this purpose.

5. In May, the Board of Transportation will release the list of local projects proposed for the annual STIP Update (LTIP). Following review of the draft LTIP by the MPO lead agency staff and NCDOT Urban Area Coordinator, staff will advertise the Rocky Mount Urban Area projects included in the STIP Update by legal notice giving 30 days opportunity for public comment. The notice will provide an address for written comments and a name and phone number to call for oral comments. The notice will indicate the availability of a map showing the location of proposed projects.

6. Before or during the 30-day advertised comment period, the TCC will review the draft LTIP and any public comments available at that time, and will forward a recommendation to the TAC.

7. After considering the comments from the public received during the 30-day public comment period and the TCC recommendation, the TAC will adopt the Local Transportation Improvement Program (LTIP) and submit it to the Board of Transportation.

APPENDIX B

Population Estimates									
	1980	1990	2000	2005	2010	2015	2020	2025	2030
Nashville	3,033	3,617	4,417	4,748	5,080	5,587	6,095	6,704	7,314
Rocky Mount	42,158	49,961	56,014	60,000	64,000	68,000	72,000	75,000	78,000
Edgecombe County	55,988	56,558	55,606	53,596	52,762	51,798	50,733	49,481	48,181
Nash County	67,153	76,677	87,385	91,544	96,577	101,578	106,617	111,451	116,210
Rocky Mount MPO	---	---	78,600	79,800	82,136	84,357	86,542	88,513	90,415
Rocky Mount MSA	123,141	133,235	142,991	145,140	149,339	153,376	157,350	160,932	164,391
North Carolina	5,880,095	6,628,637	8,046,807	8,709,947	9,441,440	10,194,993	10,943,973	11,711,250	12,467,232

Sources: U.S. Census
NC State Demographics
Rocky Mount MPO

M Drive
population estimates
8/25/2004

Socio - Economic Data

	Edgecombe County	Nash County	North Carolina
Persons Per Square Mile			
1990	112.0	141.9	136.1
1996	111.0	159.2	150.3
2000	110.1	161.8	165.2
Per Capita Income			
1996	$21,120.00	$19,816.00	$21,079.00
2002	$22,469.00	$25,998.00	$27,785.00
Registered Vehicles Per 1,000 Population			
1996	708.1	760.8	768.8
2003	758	809	792
Land Area Square Miles	505	540	48,718
Miles of Paved Roads Per Square Mile			
1996	1.40	1.80	1.40
2002	1.41	1.92	1.48
Persons Per Household			
1996	2.74	2.60	2.54
2000	2.67	2.54	2.49
Unemployment Percent			
1996	12.0	6.3	4.3
2000	6.8	4.8	3.4
2003	10.8	7.4	6.25

Q drive/Transportation
Socio - Economic Data
9/3/2004

APPENDIX D

EMPLOYMENT/INCOME PROFILE

	State of NC	Nash County	Edgecombe County
Labor Force Estimates - June 2004			
Labor Force	4,254,517	43,876	25,540
Employed	4,009,240	40,515	23,040
Unemployed	245,277	3,361	2,500
Unemployment Rate	5.8%	7.7%	9.8%
Income			
2002 Per Capita	$27,785	$25,998	$22,469
2000 Median Family	$46,335	$44,769	$35,902
Avg. Weekly Wage - June 2003	$620.77	$578.55	$532.65
Number of Employers - June 2003			
Goods Producing	41,423	474	180
Service Producing	183,354	1,847	879

Data Source: NC Employment Security Commission (July 2004)

M drive
Employment - Income Profile
8/3/2004

APPENDIX E

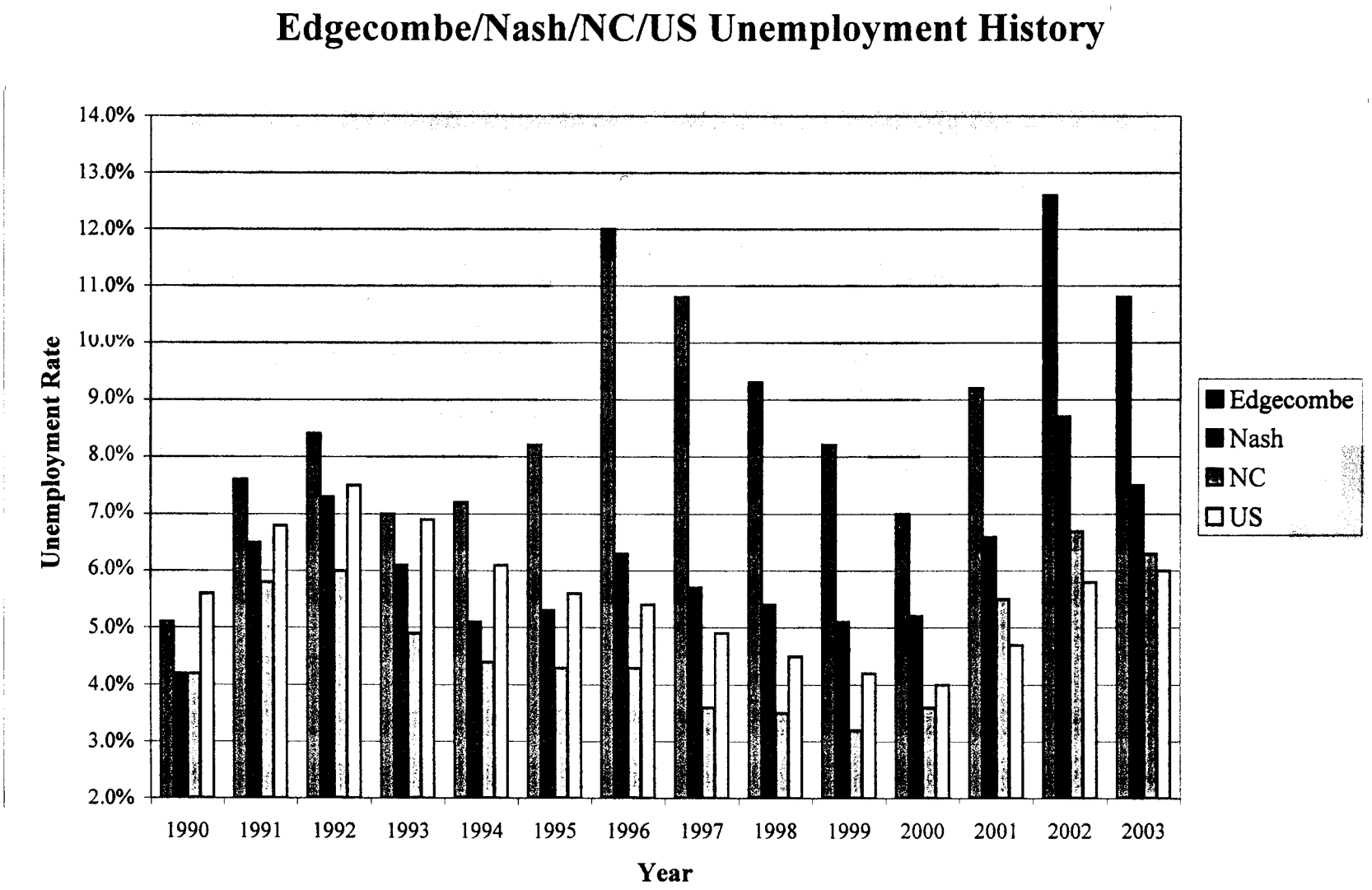
Industry Employment in Edgecombe & Nash Counties

Industry	Edgecombe	Nash	Total	%
Manufacturing	4,749	7,995	12,744	24.7%
Retail Trade	1,997	5,531	7,528	14.6%
Health Care & Social Assistance	2,150	3,531	5,681	11.0%
Accommodation & Food Services	1,089	3,202	4,291	8.3%
Wholesale Trade	1,466	2,370	3,836	7.4%
Construction	1,956	1,774	3,730	7.2%
Administrative & Waste Services	750	2,160	2,910	5.6%
Finance & Insurance	352	1,685	2,037	3.9%
Agriculture, Forestry, Fishing & Hunting	320	1,324	1,644	3.2%
Other Services, Ex. Public Admin	397	1,076	1,473	2.9%
Information	898	483	1,381	2.7%
Professional & Technical Services	238	734	972	1.9%
Transportation & Warehousing	471	513	984	1.9%
Management of Companies & Enterprises	151	701	852	1.7%
Real Estate and Rental and Leasing	166	418	584	1.1%
Educational Services	****	447	447	0.9%
Arts, Entertainment & Recreation	65	210	275	0.5%
Utilities	144	****	144	0.3%
Unclassified Establishments	32	76	108	0.2%
Mining	****	****	****	****
Totals			**51,621**	**100.0%**

**** Suppressed

Source: NC Employment Security Commission, June 2004

APPENDIX F


Edgecombe/Nash/NC/US Unemployment History
Unemployment Rate
14.0%
13.0%
12.0%
11.0%
10.0%
9.0%
8.0%
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
Year
Edgecombe
Nash
NC
US

Land Areas (Sq. Miles) Associated with Transportation Planning

Town of Nashville, NC	2.60
City of Rocky Mount, NC	35.52
RM Urban Area	46.00
RM MPO	198.00
Edgecombe County	505.00
Nash County	540.00
North Carolina	48,718.00

M drive
Land areas
8/19/2004

APPENDIX H

Rocky Mount Urban Area MPO
Municipal Road & Street Inventory - Mileage 2004

		City of Rocky Mount		Town of Nashville
NC Highway System		90.94		7.68
Paved Streets		262.28		24.02
Unpaved Streets		7.82		0.41
Total Mileage		361.04		32.11

M drive
MPO mileage
8/19/2004

APPENDIX

Summary of Highway Mileage

	Edgecombe County	Nash County	North Carolina
State Primary Rural Paved	203.55	192.26	11,897.01
State Primary Municipal Paved	33.62	61.12	2,744.14
State Primary Unpaved	0.00	0.00	28.74
State Secondary Rural Paved	437.41	716.09	53,271.31
State Secondary Rural Unpaved	14.61	28.48	6,049.25
State Secondary Municipal Paved	37.80	68.61	4,408.73
State Secondary Municipal Unpaved	0.37	0.12	91.02
Interstate *	0.00	26.27	1,018.67
Total State Maintained	727.36	1,066.68	78,490.20

* The Interstate mileage is included in the primary road figures.

Source: NCDOT 2002 Highway and Road Mileage

M drive
highway mileage
8/19/2004

Amtrak Service in Rocky Mount, NC

Train No.	Name	Rocky Mount Departure Time	Direction	From	To	Arrival Time
98	Silver Meteor	1:01 AM	Northbound	Miami	New York	10:12 AM
97	Silver Meteor	3:00 AM	Southbound	New York	Miami	9:35 PM
92	Silver Star	6:51 AM	Northbound	Miami	New York	3:28 PM
90	Palmetto	10:08 AM	Northbound	Miami	New York	7:31 PM
80	Carolinian	12:59 PM	Northbound	Charlotte	New York	9:40 PM
79	Carolinian	3:06 PM	Southbound	New York	Charlotte	8:11 PM
89	Palmetto	4:25 PM	Southbound	New York	Miami	12:20 PM
91	Silver Star	8:48 PM	Southbound	New York	Miami	5:20 PM

Note:

The "Rocky Mount Departure Times" for all Northbound trains reflects scheduled arrival time plus 10 minutes. Southbound train departure times reflects scheduled departure times.

Q drive/Transportation
Amtrak Service
8/18/2004

Intercity Bus Service In Rocky Mount, N.C.

Carrier	Bus Line Schedule No.	Rocky Mount Departure Time	Origination Point	Destination	Scheduled Time of Arrival
GLI	1044	12:25 AM	Charlotte, N.C.	New York, N.Y.	11:30 AM
CCC	572	5:00 AM	Charlotte, N.C.	Norfolk, Va.	7:40 AM
GLI	1043	5:40 AM	Philadelphia, Pa.	Greenville, S.C.	7:20 PM
CCC	571	11:20 AM	Richmond Va.	Camp LeJeune, N.C.	2:35 PM
CCC	570	11:45 AM	Camp LeJeune, N.C.	Richmond Va.	2:30 PM
CCC	308	11:45 AM	Raleigh, N.C.	Norfolk, Va.	2:40 PM
CCC	303	11:45 AM	Norfolk, Va.	Raleigh, N.C.	12:55 PM
GLI	1047	12:15 PM	New York, N.Y.	Tampa, Fl.	9:00 AM
CCC	305	3:30 PM	Norfolk, Va.	Raleigh, N.C.	5:00 PM
GLI	1040	6:45 PM	Miami, Fl.	New York, N.Y.	5:15 AM
CCC	312	7:20 PM	Raleigh, N.C.	Norfolk, Va.	10:25 PM
CCC	576	9:40 PM	Camp LeJeune, N.C.	Richmond Va.	12:20 AM
CCC	575	9:45 PM	Richmond Va.	Camp LeJeune, N.C.	12:50 AM
CCC	309	9:45 PM	Norfolk, Va.	Fayetteville, N.C.	12:40 AM

Notes:

GLC is the abbreviation for Greyhound Lines Inc.

CCC is the abbreviation for Carolina Coach Company.

Rocky Mount Bus Station Contact For Schedule Information: Jim Fratantuono.

m drive
rmbus
8/18/2004

APPENDIX L

Average Travel Time in Hours to Selected Destinations From Rocky Mount, NC

Destinations	Road Miles	Auto	Train	Bus	Airplane
Nashville, NC	13	0.3	N/A	N/A	N/A
Tarboro, NC	17	0.4	N/A	0.3	N/A
Wilson, NC	18	0.5	0.3	0.5	N/A
Greenville, NC	41	1.0	N/A	1.0	N/A
Roanoke Rapids, NC	41	1.0	N/A	1.0	N/A
Raleigh, NC	53	1.2	1.5	1.2	N/A
Fayetteville, NC	95	1.8	1.5	3.2	N/A
Elizabeth City, NC	110	2.2	N/A	5.8	N/A
Morehead City, NC	120	3.0	N/A	3.8	N/A
Richmond, Va	127	2.2	2.5	2.2	N/A
Greensboro, NC	123	2.5	3.5	4.5	6.5
Norfolk, Va	140	2.8	N/A	2.8	N/A
Wilmington, NC	133	3.0	3.5	3.5	N/A
Nags Head, NC	160	3.5	N/A	N/A	N/A
Charlotte, NC	199	4.0	5.0	6.0	3.5
Washington, DC	237	4.0	4.5	5.3	3.5
Asheville, NC	296	4.0	N/A	11.5	N/A
Philadelphia, Pa	383	6.2	7.0	10.7	5.7
Atlanta, Ga	465	7.8	9.0	12.7	3.8
New York, NY	472	7.5	10.0	11.0	4.0
Jacksonville, Fl	480	8.0	9.0	14.0	5.7
Nashville, Tn	595	10.0	16.0	19.0	6.5
Orlando, Fl	625	10.2	15.0	16.0	4.1
Miami, Fl	835	13.3	20.0	22.0	4.5
Chicago, IL	930	14.5	25.0	22.0	4.5
Tulsa, Ok	1,205	19.0	N/A	37.0	6.8
Dallas, Tx	1,245	20.0	48.0	36.0	8.5
Denver, Co	1,730	27.0	50.0	46.0	10.0
Las Vegas, Nv	2,385	37.0	63.0	65.0	10.2
Los Angeles, Ca	2,600	40.0	70.0	80.0	10.5
San Francisco, Ca	2,900	46.0	81.0	75.0	10.5
Portland, Or	2,930	46.0	80.0	79.0	11.2
Seattle, Wa	3,000	46.0	80.0	79.0	10.3
Note:					
Airplane travel time includes 2.5 hours of driving and boarding time to RDU Airport.					

Q Drive
Transportation Folder
Travel Destinations and Time

APPENDIX M

CURRENT SIDEWALK PRIORITY LIST

CURRENT SIDEWALK PRIORITY LIST

	STREET	TO	FROM	SIDE	LENGTH		ESTIMATED COST *	
1	Raleigh St.	W. Pinehurst Dr. (Creek)	E. Pinehurst Dr.	South	700		$ 24,500	
2	Church St.	Bennett St.	Anderson St.	West	650		$ 22,750	
3	Grace St.	Nash St.	Western Ave.	East	400		$ 14,000	
4	Grand Ave.	N E Main St	Myrtle Ave	South	1500		$ 52,500	
						YEAR 1 TOTAL		$ 113,750
5	Grace St.	Sunset Ave.	Thomas St.	East	625		$ 21,875	
6	Church St.	Clayton St.	Kingston Ave.	West	800		$ 28,000	
7	Thomas St.	Mayo St.	Lee St.	North	400		$ 14,000	
8	Peachtree St.	River Dr.	Trevathan St.	West	1650		$ 57,750	
						YEAR 2 TOTAL		$ 121,625
9	Grand Ave.	Mytle Ave.	Highland Ave.	South	1450		$ 50,750	
10	Thomas St.	Lee St.	Land St.	North	400		$ 14,000	
11	Sunset Ave.	Tar River	Piedmont Ave.	South	1400		$ 49,000	
						YEAR 3 TOTAL		$ 113,750
12	Raleigh Rd.	Nelson St	Nashville Rd.	East	800		$ 28,000	
13	Thomas St.	Bryant St.	Sunset Ave.	North	400		$ 14,000	
14	Sunset Ave.	Stoney Creek Dr.	Jones Rd.	North	700		$ 24,500	
15	Peachtree St.	Grace St.	Franklin St.	West	575		$ 20,125	
16	Thomas St.	Taylor St.	Bryant St.	North	400		$ 14,000	
						YEAR 4 TOTAL		$ 100,625
17	Sunset Ave.	Jones Rd.	Englewood Dr.	North	1250		$ 43,750	
18	Thomas St.	Land St.	Taylor St.	North	375		$ 13,125	
19	Sunset Ave.	Dominick Dr.	Tar River	North	775		$ 27,125	
						YEAR 5 TOTAL		$ 84,000
20	Raleigh Rd.	Ravenwood Dr.	Nelson St.	East	1200		$ 42,000	
21	Sunset Ave.	Ramp Rd.	Wesleyan Blvd.	North	1350		$ 47,250	
						YEAR 6 TOTAL		$ 89,250
22	Grace St.	Gay St.	Mill St.	East	700		$ 24,500	
23	Sunset Ave.	Irving St.	Dominick Dr.	North	600		$ 21,000	
24	Grand Ave.	Church St.	NE Main St.	South	450		$ 15,750	
25	Grace St.	Nance St.	RR Tracks	East	100		$ 3,500	
26	Raleigh Rd.	Griffin St.	Nashville Rd.	West	1150		$ 40,250	
						YEAR 7 TOTAL		$105,000
27	Old Wilson Rd.	Mitchell St.	Tyan St.	West	1250		$ 43,750	
28	Raleigh Rd.	Powell Dr.	Ravenwood Dr.	East	1100		$ 38,500	
29	Country Club Rd.	Covenant Ct.	Jeffreys Rd.	West	400		$ 14,000	
						YEAR 8 TOTAL		$ 96,250
30	Grand Ave.	Highland Ave.	Raleigh St.	South	1100		$ 38,500	
31	Sunset Ave.	Englewood Dr.	Foy Dr.	North	400		$ 14,000	
32	Sunset Ave.	Winstead Ave.	Stoney Creek Dr.	North	200		$ 7,000	
33	Raleigh Rd.	Allen St.	Powell Dr.	East	1350		$ 47,250	
						YEAR 9 TOTAL		$106,750
34	Tarboro St.	Oakwood Dr.	Ferndale Dr.	North	1550		$ 54,250	
35	Tarboro St.	Ferndale Dr.	Fairview Rd.	North	625		$ 21,875	
36	Sunset Ave.	Circle Dr.	Ramp Rd.	North	1600		$ 56,000	
						YEAR 10 TOTAL		$ 132,125

APPENDIX N

NC GASOLINE TAX PER GALLON

	NC STATE	FEDERAL	TOTAL		NATIONAL RANK
June 2001	$0.220	$0.184	$0.404		36/51
Nov 2003	$0.234	$0.184	$0.418		40/51
July 2004	$0.234	$0.184	$0.418		40/51

Data Source: American Petroleum Institute

M drive
Gas Tax Comp
8/3/2004

APPENDIX O

Gasoline Tax Per Gallon

Rank	State	State Tax	Federal Tax	Total Tax Per Gallon
1	Georgia	0.0750	0.1840	0.2590
2	Alaska	0.0800	0.1840	0.2640
3	Wyoming	0.1400	0.1840	0.3240
4	Florida	0.1410	0.1840	0.3250
5	New Jersey	0.1450	0.1840	0.3290
6	Kentucky	0.1500	0.1840	0.3340
7	Hawaii	0.1600	0.1840	0.3440
8	South Carolina	0.1600	0.1840	0.3440
9	Missouri	0.1700	0.1840	0.3540
10	New Mexico	0.1700	0.1840	0.3540
11	Oklahoma	0.1700	0.1840	0.3540
12	Virginia	0.1750	0.1840	0.3590
13	Alabama	0.1800	0.1840	0.3640
14	Arizona	0.1800	0.1840	0.3640
15	California	0.1800	0.1840	0.3640
16	Indiana	0.1800	0.1840	0.3640
17	Mississippi	0.1800	0.1840	0.3640
18	New Hampshire	0.1800	0.1840	0.3640
19	Illinois	0.1900	0.1840	0.3740
20	Michigan	0.1900	0.1840	0.3740
21	District of Columbia	0.2000	0.1840	0.3840
22	Louisiana	0.2000	0.1840	0.3840
23	Minnesota	0.2000	0.1840	0.3840
24	Tennessee	0.2000	0.1840	0.3840
25	Texas	0.2000	0.1840	0.3840
26	Vermont	0.2000	0.1840	0.3840
27	Iowa	0.2010	0.1840	0.3850
28	West Virginia	0.2050	0.1840	0.3890
29	North Dakota	0.2100	0.1840	0.3940
30	Arkansas	0.2150	0.1840	0.3990
31	Massachusetts	0.2150	0.1840	0.3990
32	Colorado	0.2200	0.1840	0.4040
33	Maine	0.2200	0.1840	0.4040
34	Ohio	0.2200	0.1840	0.4040
35	South Dakota	0.2200	0.1840	0.4040
36	Delaware	0.2300	0.1840	0.4140
37	Kansas	0.2300	0.1840	0.4140

m drive
gas tax
11/21/2003

APPENDIX O

Rank	State	State Tax	Federal Tax	Total Tax Per Gallon
38	Nevada	0.2300	0.1840	0.4140
39	Washington	0.2300	0.1840	0.4140
40	North Carolina	0.2340	0.1840	0.4180
41	Maryland	0.2350	0.1840	0.4190
42	Oregon	0.2400	0.1840	0.4240
43	Utah	0.2450	0.1840	0.4290
44	Nebraska	0.2460	0.1840	0.4300
45	Connecticut	0.2500	0.1840	0.4340
46	Idaho	0.2500	0.1840	0.4340
47	Pennsylvania	0.2590	0.1840	0.4430
48	Montana	0.2775	0.1840	0.4615
49	New York	0.2965	0.1840	0.4805
50	Rhode Island	0.3000	0.1840	0.4840
51	Wisconsin	0.3110	0.1840	0.4950

Source: American Petroleum Institute (1/7/03)

http://www.lmoga.com/taxrates.htm

m drive
gas tax
11/21/2003

APPENDIX P

Powell Bill Fund Allocations

Year	Rocky Mount		Nashville
1995	$1,633,131		-----
1996	$1,719,944		-----
1997	$1,785,316		-----
1998	$1,856,716		-----
1999	$1,861,599		-----
2000	$1,938,763		$147,145
2001	$1,861,942		$150,811
2002	$1,768,649		$143,663
2003	$1,612,487		$131,499

M drive
Powell Bill
8/18/2004

APPENDIX Q

Estimated Annual TIP Expenditure in Rocky Mount MPO

TIP Project	Cost Estimate	
Estimate Date	Sept, 2001	Sept, 2004
Ten Year Span	1998 - 2008	2000 - 2010
B-2155	$149,000	$149,000
B-3381	650,000	603,000
B-3639	---	840,000
B-3681	660,000	760,000
B-3838	458,000	410,000
B-3879	---	2,500,000
B-4111	---	765,000
B-4211	---	2,400,000
B-4503	---	1,400,000
B-4588	---	1,080,000
E-4021	---	150,000
E-4113	---	332,000
E-4521	---	150,000
E-4753	---	240,000
I-3406	725,000	725,000
I-4039	59,000	59,000
I-4704	---	3,500,000
R-2823	14,700,000	17,300,000
R-4013	283,000	283,000
R-4027	758,000	1,578,000
U-2111	5,780,000	---
U-2218	8,471,000	8,459,000
U-2310	4,738,000	4,738,000
U-2561	14,771,000	14,839,000
U-3327	8,200,000	---
U-3328	2,350,000	1,498,000
U-3329	6,805,000	7,155,000
U-3330	10,800,000	11,300,000
U-3331	10,400,000	11,225,000
U-3621	7,700,000	7,700,000
U-3820	4,200,000	4,200,000
U-4019	5,700,000	6,600,000
Ten Year Totals	**$108,357,000**	**$112,938,000**
Annual Average	**$10,835,700**	**$11,293,800**

M drive
TIP History
8/30/2004

APPENDIX R

Financial Calculations for Table 5.1

$10,835,700	Annual Average I from Appendix Q
$11,293,800	Annual Average II from Appendix Q
$22,129,500	Sum
Divided by 2	
$11,064,750	Annual Average
x 0.75	Assume 75% Funding Level
$8,298,562	

Say $8,250,000 Per Year

APPENDIX S

Rocky Mount Urban Area MPO
Estimated Costs of Bridge, Enhancement, Interstate, Rural, and Urban TIP Projects

TIP Project	Project Description	County	TIP 2000 - 2006	TIP 2002 - 2008	TIP 2004 - 2010
B-2155	WEED Rd bridge	N	$305,000	$149,000	xxx
B-3381	Woodruff Rd bridge @ Stoney Creek		677,000	603,000	xxx
B-3639	SR 1223 bridge #60 @ Cokey Swamp				
	Airport Rd bridge @ CSX RR				
	SR 1006 bridge #58 @ Cokey Swamp			473,000	
	SR 1603 bridge #73 @ Stoney Creek			1,300,000	
	SR 1135 bridge #19 @ Cokey Swamp			660,000	
	Halifax Rd bridge @ Tar River	N		2,200,000	
	SR 1250 bridge @ Tar River	E	xxx		
	SR 1670 bridge @ Stoney Creek	N	xxx		
E-3140	Tar River Greenway	E/N	300,000	300,000	
E-4021	Train Car Rehabilitation	N		150,000	75,000
E-4113	Sidewalks	E/N	xxx	332,000	xxx
E-4521	Train Station Commons	N	xxx	150,000	xxx
	Sidewalks	E/N	xxx	xxx	240,000
I-3319	I-95 Pavement Rehabilitation	N	xxx	xxx	11,550,000
I-3406	I-95/US 64 Interchange Lighting	N	725,000	0	0
	I-95 Pavement Rehabilitation	N	xxx	xxx	
	I-95 Median Guardrail		9,861,000	2,844,000	
	I-95 Pavement Rehabilitation	N	xxx	xxx	
R-652	Widen US 301 Battleboro to Whitakers	N	15,791,000	18,575,000	xxx
R-2823	Northern Connector	N			
R-3316	Upgrade Halifax Rd	N			
R-4013	US 64 Median Guardrail	E			
R-4027	US 64 Median Guardrail	N			
U-2218	NC 43 Bypass	E	8,884,000	8,459,000	xxx
		N	4,738,000	0	0
	Widen NC 43 from NC 48 to I-95	N	17,494,000	14,771,000	
	Widen US 64A from Stokes to US 64	E			
U-3329	Battleboro Flyover	E/N			
U-3330	Widen Wesleyan Blvd	N			
U-3331	Widen Country Club Rd	N			
U-3621	Widen Hunter Hill Rd	N			
U-3820	Tanner Rd alignment	E			
U-4019	Widen Winstead Ave, Sunset to Hunter Hill	N			
TOTAL ESTIMATE			$128,788,000	$121,032,000	$126,437,000

APPENDIX T

North Carolina Department of Transportation
Maintenance and Construction Expenditures
Edgecombe and Nash Counties

	Edgecombe County		Nash County	
Fiscal Year	Maintenance	Construction	Maintenance	Construction
1990-1991	$7,184,444.39	$1,986,945.78	$4,424,560.78	$1,986,535.10
1991-1992	5,039,027.76	2,634,592.82	3,928,989.26	2,189,763.92
1992-1993	3,035,178.67	3,691,214.36	4,068,756.24	3,312,931.48
1993-1994	4,326,995.61	5,677,885.00	4,751,830.05	2,413,183.85
1994-1995	5,143,990.54	10,810,723.64	4,487,185.97	2,838,270.97
1995-1996	7,681,905.19	18,300,435.14	4,666,036.31	1,781,674.74
1996-1997	9,455,014.86	18,121,360.47	4,483,885.72	4,887,392.42
1997-1998	5,578,617.91	9,969,786.21	5,563,430.91	3,725,510.94
1998-1999	3,874,221.83	4,234,363.12	6,125,482.81	6,265,898.28
1999-2000	9,559,844.17	5,975,216.30	4,399,927.42	4,955,282.61
2000-2001	4,011,114.62	3,456,610.68	5,834,967.99	5,804,767.83
2001-2002	3,897,521.28	3,290,148.60	5,614,955.88	5,902,540.62
2002-2003	2,488,703.13	2,798,114.98	4,080,070.47	7,681,379.57
2003-2004	2,490,696.03	1,783,906.30	4,378,736.46	5,207,551.90
Totals	**$73,767,275.99**	**$92,731,303.40**	**$66,808,816.27**	**$58,952,684.23**

M drive
Maint Const Exp
8/23/2004

MOTOR VEHICLE REGISTRATIONS

City of Rocky Mount						
	Automobiles	Trucks	Buses	Motorcycles	Tractor Trucks	Recreation Vehicles
August 2002	36,241	8,362	11	764	42	123
August 2003	36,333	8,383	11	808	47	117
August 2004	38,154	8,700	19	869	50	110

Edgecombe County						
	Automobiles	Trucks	Buses	Motorcycles	Tractor Trucks	Recreation Vehicles
August 2002	30,402	11,117	55	648	404	74
August 2003	30,167	10,756	60	659	310	68
August 2004	31,728	11,004	52	713	303	72

Nash County						
	Automobiles	Trucks	Buses	Motorcycles	Tractor Trucks	Recreation Vehicles
August 2002	52,156	19,348	123	1,200	1,005	206
August 2003	53,023	19,809	126	1,321	1,037	207
August 2004	55,852	20,657	130	1,457	988	199

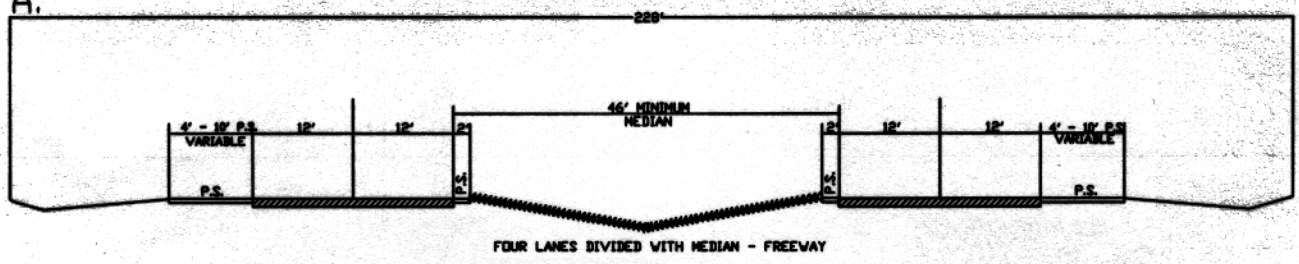
Source: NC Division of Motor Vehicles

Note: The Edgecombe and Nash county totals include the City of Rocky Mount registrations.

M Drive
registrations
8/17/2004

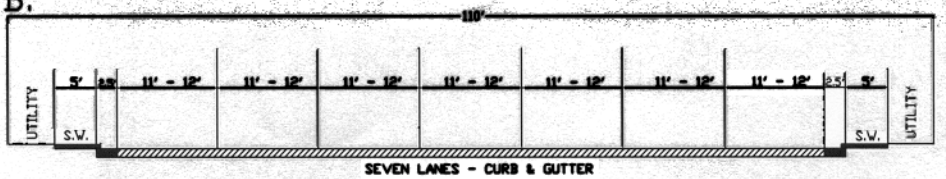
TYPICAL THOROUGHFARE CROSS SECTIONS

A.



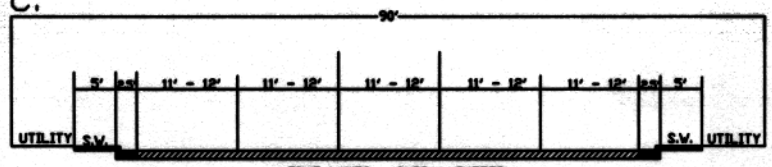
FOUR LANES DIVIDED WITH MEDIAN - FREEWAY

B.



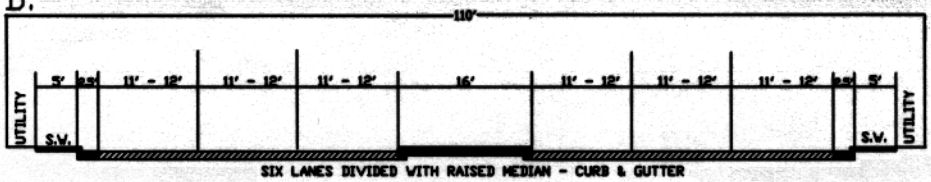
SEVEN LANES - CURB & GUTTER

C.



FIVE LANES - CURB & GUTTER

D.



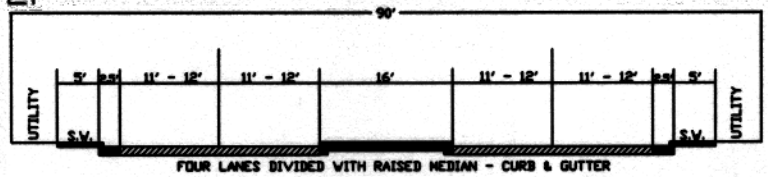
SIX LANES DIVIDED WITH RAISED MEDIAN - CURB & GUTTER

FIGURE C.1

10-1-02

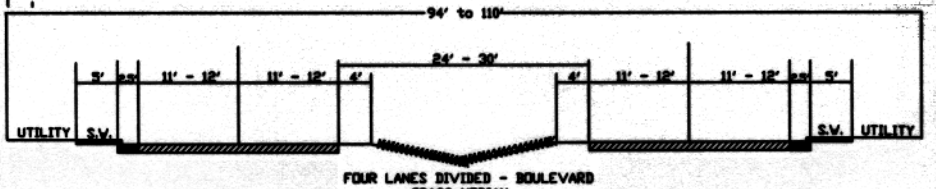
TYPICAL THOROUGHFARE CROSS SECTIONS

E.



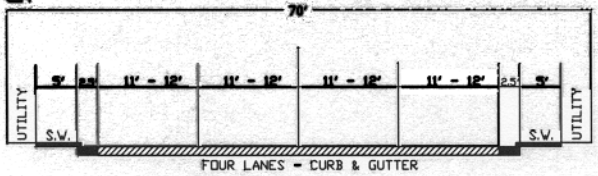
FOUR LANES DIVIDED WITH RAISED MEDIAN - CURB & GUTTER

F.



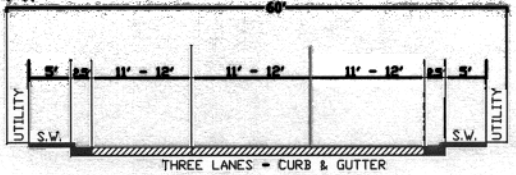
FOUR LANES DIVIDED - BOULEVARD
GRASS MEDIAN

G.



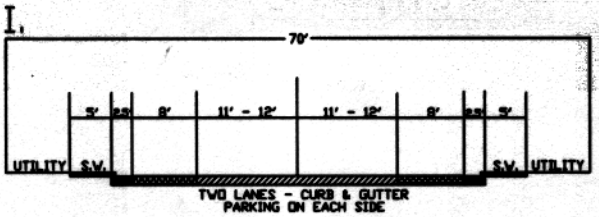
FOUR LANES - CURB & GUTTER

H.



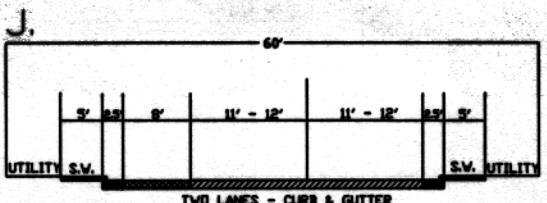
THREE LANES - CURB & GUTTER

I.



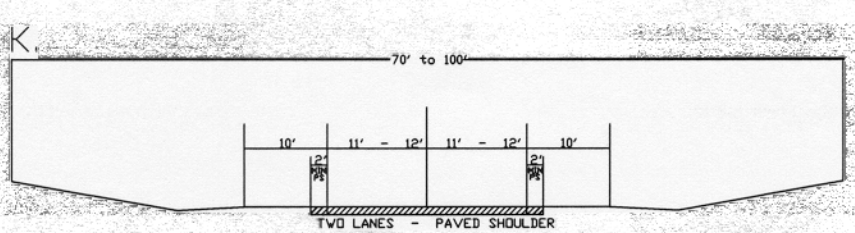
TWO LANES - CURB & GUTTER
PARKING ON EACH SIDE

J.



TWO LANES - CURB & GUTTER
PARKING ON ONE SIDE

K.

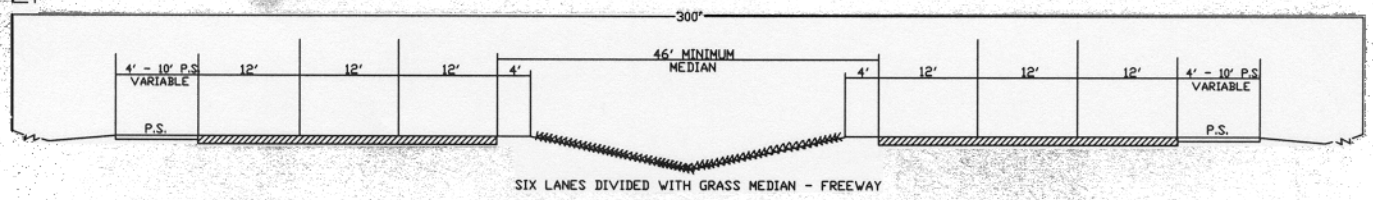


TWO LANES - PAVED SHOULDER

10-1-02

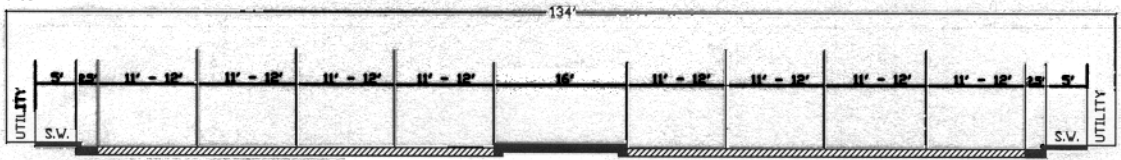
TYPICAL THOROUGHFARE CROSS SECTIONS

L.



SIX LANES DIVIDED WITH GRASS MEDIAN - FREEWAY

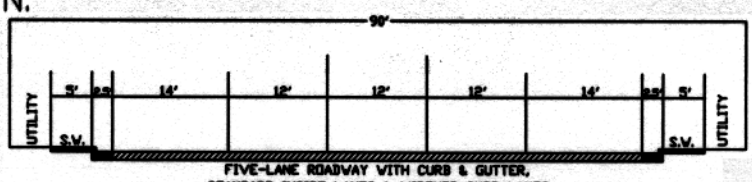
M.



EIGHT LANES DIVIDED WITH RAISED MEDIAN - CURB & GUTTER

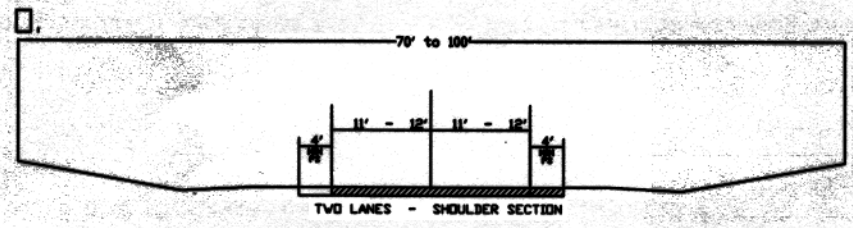
TYPICAL THOROUGHFARE CROSS SECTIONS FOR ACCOMMODATING BICYCLES

N.



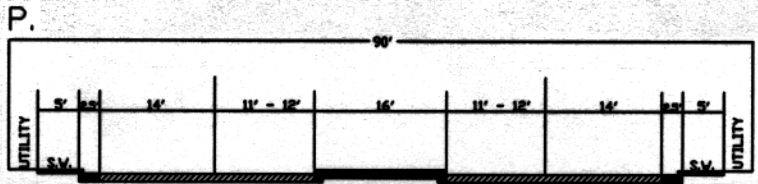
FIVE-LANE ROADWAY WITH CURB & GUTTER,
STANDARD INSIDE LANES & WIDENED CURB LANES

O.



TWO LANES - SHOULDER SECTION

P.



FOUR LANES DIVIDED WITH RAISED MEDIAN - CURB & GUTTER,
STANDARD INSIDE LANES & WIDENED CURB LANES

10-1-02

TYPICAL ROADWAY UNIT COSTS FOR PRELIMINARY ESTIMATES

NEW LOCATION	COST PER MILE
2 LANE SHOULDER SECTION	$1,400,000
3 LANE C&G SECTION (40' FF)	$1,800,000
4 LANE C&G SECTION (52' FF)	$2,000,000
4 LANE C&G RAISED MEDIAN SECTION (40' FF)	$2,900,000
5 LANE C&G SECTION (64' FF)	$2,300,000
5 LANE SHOULDER SECTION (NON-DIVIDED)	$2,200,000
4 LANE SHOULDER W/ MEDIAN (NON-FREEWAY)	$2,400,000
4 LANE SHOULDER W/ MEDIAN (FREEWAY)	$2,700,000

WIDENING PROJECTS	
EXISTING 2 LANE, 20' SHOULDER SECTION TO	
3 LANE C&G	$1,100,000
5 LANE C&G	$1,800,000
EXISTING 2 LANE, 20' C&G SECTION TO:	
3 LANE C&G	$1,000,000
5 LANE C&G	$1,700,000
EXISTING 4 LANE W/ MEDIAN TO:	
6 LANE W/ MEDIAN (INSIDE WIDENING)	$1,900,000
6 LANE W/ MEDIAN (OUTSIDE WIDENING)	$2,200,000
WIDEN EXISTING 18' SECTION TO 24' SECTION	$ 650,000

OTHER SPECIAL COSTS TO BE ADDED	
NEW BRIDGE OVER STREAM	$60/SF
WIDEN EXISTING BRIDGE OVER STREAM	$70/SF
GRADE SEPARATIONS	$1,000,000/ EA

Appendix X

Rocky Mount Urban Area MPO Transportation Plan 2030 Projects

#	TIP #	Facility	Description / Extents	Miles	# Lanes	Horizon Year # Lanes	Federal Functional Class	Regionally Significant	Exempt	Estimated Cost	Reflected in Network Coding ?
1			**PRIORITY PHASE 1 (2004 - 2010)**								
2	B-3681	Airport Road (SR 1555)	Replace bridge #277 over CSX RR		2	2	Minor Arterial	No	Yes	$760,000	No
3	U-3331	Country Club Road (SR 1616)	Widen from B. Leonard Blvd to Jeffreys Rd	1.40	2	5	Collector	No	No	10,400,000	Yes
4	U-3328	Raleigh Street (US 64A)	Widen from Stokes St to US 64 Bypass	0.80	2	5	Principal Arterial	Yes	No	2,350,000	Yes
5	B-4211	Halifax Rd (SR 1544)	Replace bridge #56 over Tar River		2	2	Minor Arterial	No	Yes	2,400,000	No
6	U-4019	N. Winstead Ave (SR 1613)	Widen from Sunset Ave to Hunter Hill Rd	1.70	2	4	Minor Arterial	Yes	No	6,600,000	Yes
7	U-3621	Hunter Hill Road (SR 1604)	Widen from Benvenue Rd to Winstead Ave	2.40	2	4	Minor Arterial	Yes	No	7,700,000	Yes
8	I-3319	I-95	Pavement Rehabilitation I-95	15.00	4	4	Interstate	No	Yes	11,550,000	No
9	I-3607	I-95	Pavement Rehabilitation I-95	2.00	4	4	Interstate	No	Yes	1,150,000	No
10	I-4704	I-95	Pavement Rehabilitation I-95	15.30	4	4	Interstate	No	Yes	3,500,000	No
11	B-3879	Old Carriage Road	Replace Stoney Creek Bridge # 73		2	2	Minor Arterial	No	Yes	2,500,000	No
12	B-4588	SR 1670 Rolling Acres Drive	Replace Stoney Creek Bridge #1		2	2	N/A	No	Yes	1,080,000	No
13	B-3838	SR 1006	Replace Cokey Swamp Bridge # 58		2	2	N/A	No	Yes	410,000	No
14	B-4111	SR 1135	Replace Cokey Swamp Bridge # 19		2	2	N/A	No	Yes	765,000	No
15	B-3639	SR 1223	Replace Cokey Swamp Bridge # 60		2	2	N/A	No	Yes	840,000	No
16	B-4503	SR 1250 Rocky Mount Battleboro RD	Replace Tar River Bridge # 7		2	2	Minor Arterial	No	Yes	1,400,000	No
17	FS-0204D	Springfield Road	Feasibility Study to Widen from US 64 Bus to Leggett Rd	1.30	2	3	Minor Arterial	No	Yes	2,056,000	No
18		City of Rocky Mount	Upgrade Traffic Signal System					No	Yes	4,400,000	No
19			Construct New Sidewalks Along Thoroughfares (A)	3.60				No	0	800,000	No
20			Construct New Sidewalks Along Thoroughfares (B)					No	Yes	(included above)	No
21			Construct New Sidewalks Along Thoroughfares (C)					No	Yes	(included above)	No
22			**Subtotal**							**$60,661,000**	
23			**PRIORITY PHASE 2 (2011 - 2020)**								
24	R-2823	Northern Connector (New road from)	Hunter Hill Road to US 301	4.30	0	5	Minor Arterial	Yes	No	14,700,000	Yes
25	U-2561	NC 43	Widen from Woodruff Road to I-95	2.00	2	5	Minor Arterial	Yes	No	5,900,000	Yes
26	U-3330	Wesleyan Blvd (US 301 Bypass)	Widen from NC 43 to May Dr	2.30	4	6	Principal Arterial	Yes	No	10,800,000	Yes
27	FS-0204B	Airport Road	Feasibility Study to Widen from US 301 Bypass to Tanner Rd	1.50	2	4	Minor Arterial	No	Yes	3,180,000	No
28	FS-0204D	Springfield Road	Feasibility Study to Widen from Leggett Rd to NC 97	1.10	2	3	Minor Arterial	No	Yes	897,000	No
29		I-95	Construct Interchange at Sunset Ave				Interstate	Yes	No	7,000,000	Yes
30		Red Oak Road	Extend South Terminus to Oak Level Rd	0.50	0	2	Collector	No	No	1,000,000	Yes
31		NC 58	Build Connector to SR 1001	0.75	0	3		No	No	2,000,000	Yes
32		Cokey Road	Widen from Redgate Ave to Old Wilson Rd	0.34	2	3	Minor Arterial	Yes	No	590,000	Yes
33		NC 48	Widen from Homestead Rd to Red Oak/Battleboro Rd	2.43	2	5	N/A	Yes	No	4,955,000	Yes
34		NC 48	Widen from Red Oak/Battleboro Rd to NC 4	1.70	2	5	N/A	Yes	No	3,370,000	Yes
35		Beechwood Drive	Extend from West Mount Dr to US 301 Bypass	0.60	0	5	Minor Arterial	Yes	No	5,400,000	Yes
36		Sutton Road	Replace Tunnels with Bridge	0.32	1	4	Minor Arterial	No	Yes	15,500,000	Yes
37		Kingston Avenue	Widen from NC 97 to Church St	1.05	2	3	Minor Arterial	Yes	No	1,890,000	Yes
38		Kingston Avenue	Extend from NC 97 to US 301 Bypass	0.40	0	5	Minor Arterial	Yes	No	1,225,000	Yes
39		Southeast Connector	Construct Connector from Sutton Rd to Cokey Rd	1.90	0	5	Minor Arterial	Yes	No	5,825,000	Yes
40		Cunningham Drive	Extend to Northern Connector	0.50	0	2	N/A	No	No	1,177,500	Yes
41		Crusenberry Rd	Extend to Northern Connector	0.50	0	2	N/A	No	No	1,535,000	Yes
42		Bethlehem Road	Widen from Beechwood Dr to Halifax Rd	1.40	2	4	Minor Arterial	Yes	No	2,775,000	Yes

Appendix X
Rocky Mount Urban Area MPO Transportation Plan 2030 Projects

#	TIP #	Facility	Description / Extents	Miles	# Lanes	Horizon Year # Lanes	Federal Functional Class	Regionally Significant	Exempt	Estimated Cost	Reflected in Network Coding ?
43		Halifax Road	Widen from Bethlehem Rd to Sunset Ave	1.60	2	5	Minor Arterial	Yes	No	3,170,000	Yes
44		Sunset Avenue	Widen from Halifax Rd to Old Carriage Rd	1.50	2	5	Minor Arterial	Yes	No	2,700,000	Yes
45		Hunter Hill Road	Widen from Winstead to Halifax	1.30	2	5	Minor Arterial	Yes	No	2,692,500	Yes
46	R-3316	Halifax Rd (SR 1544)	Widen from Sunset Ave to Bethlehem Rd	1.50	2	4	Minor Arterial	Yes	No	9,900,000	Yes
47			**Subtotal**							**$108,182,000**	
48			**PRIORITY PHASE 3 (2021 - 2030)**								
49		Northern Connector	Extend from US 301 to Seven Bridges Rd	1.60	0	4	Minor Arterial	Yes	No	4,910,000	Yes
50		Halifax Road	Widen from NC 97 to West Mount Dr	1.70	2	5	N/A	Yes	No	6,500,000	Yes
51		Halifax Road	Widen from West Mount Dr to Bethlehem Rd	2.00	2	5	N/A	Yes	No	3,965,000	Yes
52		Halifax Road	Widen from Sunset Ave to NC 43	3.50	2	5	Minor Arterial	Yes	No	6,935,000	Yes
53		Hunter Hill Road	Widen from Halifax to I-95	0.80	2	3	Minor Arterial	Yes	No	880,000	Yes
54		Bethlehem Road	Align with Oak Level Rd		2	5	N/A	No	No	2,250,000	Yes
55		Dreaver Street	Extend to Tarboro St	0.30	0	2	N/A	No	No	650,000	Yes
56		US 64 Bypass	Widen from I-95 to Church St	6.00	4	6	Freeway	Yes	No	15,820,000	Yes
57		Jeffries Road	Widen from US 301 Bypass to NC 43	1.60	2	3	Collector	No	No	1,760,000	Yes
58		Meadowbrook Road	Widen from Raleigh Street to Rouse Road	1.70	2	3	Minor Arterial	Yes	No	1,870,000	Yes
59		Barnes Street	Extend to Meadowbrook Road	0.51	0	2	N/A	No	No	1,060,000	Yes
60			**Subtotal**							**$46,600,000**	
61			**PRIORITY PHASE 4 (2031 - OPEN)**								
62		Nashville Road	Extend to Rex St	0.50	0	3	Minor Arterial	Yes	No	17,500,000	
63		Fairview Road	Align with Green Pasture Road		2	2	N/A	No	No	1,425,000	
64		Old Mill Road	Widen from Wesleyan Blvd to Bethlehem Road	1.40	2	3	Collector	No	No	1,540,000	
65		Old Mill Road	Widen from Bethlehem Road to Halifax Road	2.20	2	3	Collector	No	No	2,420,000	
66		NC 97	Widen from US 301 Bypass to Halifax Road	2.50	2	5	N/A	Yes	No	4,500,000	
67		Grand Avenue	Widen from Atlantic Avenue to Falls Road	0.50	4	5	Minor Arterial	Yes	No	810,000	
68		McKendree Church Road	Widen from RR to Old Wilson Road	1.00	2	5	N/A	Yes	No	1,980,000	
69		Arlington Avenue	Extend from Dunn Street to Vance Street	0.40	0	2	Collector	No	No	755,000	
70		Vance Street	Widen from Mitchell Street to Sutton Road	0.90	2	3	Collector	No	No	1,045,000	
71		Greyson Road	Widen from NC 48 to Fenner Road	1.00	2	5	N/A	No	No	1,980,000	
72		Tarboro Street	Extend to NC 43 Bypass	0.90	0	2	Collector	No	No	2,180,000	
73		NC 97	Widen from Tanner Road to Springfield Road	1.30	2	5	Minor Arterial	Yes	No	2,340,000	
74		NC 97	Widen from Grace to Nashville Rd	0.80	4	5	Principal Arterial	Yes	No	1,417,500	
75		Nashville Road	Widen from Hammond Street to Raleigh Road	0.58	2	3	Minor Arterial	Yes	No	1,044,000	
76		I-95	Widen from NC 4 to NC 97	19.00	4	6	Interstate	Yes	No	50,000,000	
77		Winstead Avenue	Widen from Sunset Avenue to Ridgecrest Drive	0.70	3	5	Minor Arterial	Yes	No	1,510,000	
78		Arbor Lane	Arbor Lane	0.23	2	2	N/A	No	No	654,000	
			Subtotal							**$93,100,500**	
79			**Grand Total**							**$308,543,500**	